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Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                        Result
No.
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Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
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                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length:
                                                                                                                                                                                                                                                                                        Match
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1: /SIDS6/gcgdatta/geneseq/geneseqp/AA1980.DAT:*

2: /SIDS6/gcgdatta/geneseq/geneseqp/AA1981.DAT:*

2: /SIDS6/gcgdatta/geneseq/geneseqp/AA1982.DAT:*

3: /SIDS6/gcgdatta/geneseq/geneseqp/AA1983.DAT:*

4: /SIDS6/gcgdatta/geneseq/geneseqp/AA1983.DAT:*

5: /SIDS6/gcgdatta/geneseq/geneseqp/AA1985.DAT:*

6: /SIDS6/gcgdatta/geneseq/geneseqp/AA1986.DAT:*

7: /SIDS6/gcgdatta/geneseq/geneseqp/AA1987.DAT:*
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92.7
87.8
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1.995 Million cell updates/sec
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Gapop 10.0 , Gapext 0.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1990.DAT:*
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/SIDS6/gcgdata/geneseq/geneseqp/AA1900.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1001.DAT:*
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                                                                                                                                                                                                                                                                                        Length
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                                                                          Y79124
Y79120
Y79122
Y79123
Y79112
Y79118
Y79128
Y79128
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Peptide antagonist
Human guanylin pre
Human guanylin pre
Human adenovirus
Amino acid sequenc
                                                                                                                                                                                                                                                                                   Description
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45																9							22									13	12
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u.	ω	ω.	ω	ω	ω	5	5	5.	5	5	5	5	5	5	5	5	5	5	5	8	œ •	<b>в</b>	8	8	8	ρ.	ъ.	8	8	8	8	80.5	
498	492	368	355	196	80	295	295	196	166	164	130	92	92	25	25	20	20	œ	œ	162	162	162	162	162	162	162	162	162	162	116	115	380	380
21	20	16	20	19	21	21	21	20	21	21	21	21	21	15	15	21	20	21	21	20	20	20	20	20	20	20	20	20	20	21	20	21	21
в07577	12	R67970	17	Y86035	Y79108	Y75122	Y75121	Y36831	G49731	G27095	G27097	G49732	B54096	R52793	R52775	Y79133	W94489	Y79119	Y84661	Y04154	Y01593	Y04172	Y12985	Y12678	W93619	Y35888	Y36051	2545	596	9132	278	Y68662	686
Protein encoded by	G G	Alfalfa beta-1,3-g	psitta	noniae der	Peptide antagonist	Neisseria meningit	Neisseria meningit	Amino acid sequenc	Arabidopsis thalia	Zea mays protein f	Zea mays protein f	Arabidopsis thalia	Human pancreatic c	Murine BrE-3 immun		Human foetal intes		Peptide antagonist	non i	' EST secr	prote	98	secreted	5' EST Se	EST secr	human	ded human		éd	B Strepto	secre	acid	Amino acid sequenc

## ALIGNMENTS

RESULT Y79124

Y79124 standard; Peptide; 8

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Y79124;

Peptide antagonist of zonulin. 05-JUN-2000 (first entry)

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03-AUG-1998;
                                                                                                                                 WO200007609-A1
                                                                                                                                                    Synthetic
                                                                                                                                                                     hypotensive; immunosuppressive; antipar gastrointestinal inflammation; therapy
                                                                                                                                                                                        Zonulin; antagonist; zonula occludens toxin receptor:
blood-brain barrier; antiinflammatory; cerebroprotective;
neuroprotective; dermatological; antiulcer; antiviral;
antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                       (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                             28-JUL-1999;
                                                                                                               17-FEB-2000.
                                                                          98US-0127815.
                                                                                            99WO-US16683
                                                                                                                                                                                antiparasitic; vasotropic;
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New peptide antagonist of zonulin useful as antiinflammatory agent for

WPI; 2000-205565/18

ema, gastritis, encephalomyelitis -

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CC (Z), one of 25 such peptides (see Y9105-29) of the invention, which bind to a zonula occludents toxin (20T) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (YJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor (Z). They can be prepared by chemical synthesis or by use of thinding. They can be prepared by chemical synthesis or by use of creambinant DNA techniques. The peptide antagonists are used as an artiinflammatory agents in the treatment of gastrointestinal confinement on the zor receptor in the intestine can yet does not physiologically modulate the opening of Ty in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridum difficile increases with cause diseases with meccaused by infection, e.g. Clostridum difficile infection, consecution, e.g. consential proteins of the cancer, collagenous colitis, inflammatory bowel disease, diseases with mucosal diseases without unceration, e.g. astroitestial lymphanglectasia, correction of congenital heart disease with Fontan's operation, correction of congenital heart disease with Fontan's operation, collagenous colours expenditum disease, and after surgical correction of congenital heart disease with Fontan's operation, collagenous colours and consenses with sease, costnophilic gastroenteritis, and after surgical correction of congenital heart disease with Fontan's operation, collagenous colours and consenses with sease, costnophilic gastroenteritis, and immune diseases, coellag disease, ecsnophilic gastroenteritis, and immune diseases, coellag classes, ecsnophilic gastroenteritis, and immune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Researches 8; Conservation
                                                                                                                                                                                                                                                                                                                                                     Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebprotective; neuroprotective; dermatological; antiulcer; antivizal; antibacterial; cytostatic; anti-HIV; vulnerary; antialiergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                   (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                      03-AUG-1998; · 98US-0127815.
                                                                                                                                         28-JUL-1999;
                                                                                                                                                                                               17-FEB-2000
                                                                                                                                                                                                                                                  WO200007609-A1
                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Y79120 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GGLLVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ggllvqdg 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 41; DB 21; ilarity 100.0%; Pred. No. 3.2e+05; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA;
                                                                                                                                            99WO-US16683.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
Y79122
ID Y7
      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This present sequence is that of a peptide antagonist of zonulin (27), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (207) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (C (73). The peptide antagonists are based on a common motif of 207 and human zonulins, which is believed to be critical for receptor and human zonulins. The peptide antagonists are used as an inflammanton, where they bind to the 207 receptor in the intestine criminatory agents in the treatment of gastrointestinal criminatory agents in the treatment of gastrointestinal conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, caused by infection, e.g. clostridium difficile infection, contestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by Imphantic obstruction, e.g. congenital infestinal lymphanglectasia, correction of congenital heart disease with Fontar's operation, correction of congenital heart disease with Fontar's operation, collage disease, eosinophilic gastrocenteritis, and immune diseases, collage, eosinophilic gastrocenteritis, and immune diseases, collage, eosinophilic gastrocenteritis, and immune diseases, collage, eosinophilic gastrocenteritis, primarily to milk, e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                        Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e.g. systemic lupus milk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New peptide antagonist of zonulin useful as antiinflammatory agent for
treating cerebral ischemia, stroke, cerebral edema gastritis
shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
28-JUL-1999;
                                                                                                            WO200007609-A1.
                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                              Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y79122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y79122 standard; Peptide; 8 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 46; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-205565/18.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GGLLVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
   99WO-US16683.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 38; DB 21;
Pred. No. 3.2e+05;
1; Mismatches 0
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Length 8;

Indels

0; Gaps

0

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B

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Query Match
Best Local Similarity
Thes 7; Conserv
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CC (2), one of 25 such peptides (see Y79105-29) of the invention, CC (2), one of 25 such peptides (see Y79105-29) of the invention, CC (27), one of 25 such peptides toxin (207) receptor, yet do not CC (TI). The peptide antagonists are based on a common motif of 207 CC and human zonulins, which is believed to be critical for receptor CC binding. They can be prepared by chemical synthesis or by use of CC recombinant DNA techniques. The peptide antagonists are used as an CC antiinflammatory agents in the treatment of gastrointestinal CC inflammation, where they bind to the 207 receptor in the intestine and yet does not physiologically modulate the opening of TJ in the CC increased intestinal conditions that cause protein losing enteropathy CC caused by infection, e.g. Clostridium difficile infection, confection, e.g. clostridium difficile infection, collitis, wiral gastroenteritis, parasite CC infestation, bacterial overgrowth, whipple's disease, diseases with CC mucosal erosion or ulcerations, e.g. spatralitis, parasite collagenous colitis, inflammatory bowel disease, diseases marked by CC lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, CC sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical CC correction of congenital heart disease with Fontan's operation, colliderial party by the colliderial 
                                         Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                           Peptide antagonist of zonulin
                                                                                                                                                                                          05-JUN-2000
                                                                                                                                                                                                                                                      Y79123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 46; 69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          shigellosis, viral gastroenteritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-205565/18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                1 GGLLVQDG
                                                                                                                                                                                                                                                                                                                                       ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            systemic
                                                                                                                                                                                                                                                                                                                                   gglcvqdg
                                                                                                                                                                                                                                                      standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0127815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                 87.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                 Score 36; [Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                               DB 21;
3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            allergies,
                                                                                                                                                                                                                                                                                                                                                                                                                              Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                0
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Y79112
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Query Match
Best Local S
Matches 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the
   blood-brain barrier;
neuroprotective; der
                                                             Zonulin; antagonist;
                                                                                                                                                                                         05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              e.g. systemic lupus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                          Y79112;
                                                                                                                                                                                                                                                                                                                        Y79112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 47; 69pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GGLLVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 ggllvqpg 8
                                                                                                                                                                                                                                                                                                                                                                                      u
                                                                                                                                                                                                                                                                                                                        standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 7; Conserv
                                                                                                                               antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MARYLAND BALTIMORE
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ier; antiinflammatory; cerebroprotective;
dermatological; antiulcer; antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              erythematosus
                                                                 zonula occludens toxin receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82.9%;
                                                                                                                                                                                                                                                                                                                        8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 34; DB 21;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        food allergies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludent toxin (207) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TV). The peptide antagonists are based on a common motif of zor and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammation, where they bind to the ZOT receptor in the intestine antiyoty agents in the treatment of gastrointestinal corresponding to the string the opening of TV in the intestine for the string the string the peptide is useful for the intestine for the string intestinal permeability and the peptide is useful for treating intestinal permeability and the peptide infection, e.g. Clostridium difficile infection, bacterial overgrowth, whipple's disease, with concessed by infection, e.g. Clostridium difficile infection, bacterial overgrowth, whipple's diseases marked by impartation, bacterial overgrowth, whipple's diseases marked by impartation obstruction, e.g. congenital intestinal lymphangisectasia, correction of congenital heart disease, with force are constant of congenital heart diseases with force are constant diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 80.5%;
Best Local Similarity 87.5%;
Matches 7; Conservative
                                                         05-JUN-2000
   Peptide antagonist of zonulin.
                                                                                                                                                                  Y79118 standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 43; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New peptide antagonist of zonulin useful as antinnflammatory agent for
treating cerebral isochemia, stroke, cerebral edema, gastritis,
shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (UYMA-) UNIV MARYLAND BALTIMORE
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                                                                                                                                                                                                                                                                                                  1 GGLLVQDG 8
| ||||||
1 grllvqdg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 AA;
                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US16683.
                                                                                                                                                              Å
                                                                                                                                                                                                                                                                                                                                                                                                        Score 33; DB 21;
Pred. No. 3.2e+05;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                    χχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y9105-29) of the invention. CC which bind to a zonula occludens toxin (207) receptor, yet do not compliant to a zonula occludens toxin (207) receptor, yet do not compliant productions compliant to the control of the peptide antagonists are based on a common motif of 207 and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinfiammation, where they bind to the ZOT receptor in the intestinal inflammation where they bind to the ZOT receptor in the intestinal conditions that cause poeting of TJ in the intestine. Gastrointestinal inflammation conditions give rise to intestine. Gastrointestinal inflammation conditions give rise to cincreased intestinal permeability and the peptide is useful for treating intestinal permeability and the peptide is useful for caused by infection, e.g. Clostridium difficile infection, caused by infection, e.g. Clostridium difficile infection, cancer, collagenous colitis, inflammatory bowel disease, diseases with collagenous colitis, inflammatory bowel disease, diseases with collagenous colitis, inflammatory bowel disease, diseases marked by imphatic obstruction, e.g. congenital intestinal lymphangiactasia, correction of congenital heart disease with Fontan's operation, collagenous colitis, inflammatory solutions, and after surgical correction of congenital heart disease with Fontan's operation, collagenous colitis, inflammatory solutions, and after surgical consideration, beginned the seases, elseases, eschophilic gastroenteritis, and immune diseases, eschophilic gastroenteritis, and immune diseases, eschophilic gastroenteritis, and immune diseases.
                                                                                                                                                                                                                                                                Query Match 80.
Best Local Similarity 75.
Matches 6; Conservative
                    Y79128 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    e.g. systemic lupus milk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 45; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New peptide antagonist of zonulin useful as antlinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zooulin; antagonist; zonula occludens toxin receptor; blood-bxain barrier; antiinflammatory; cerebroprotective; lematological; antiulcer; antiviral; antibacterial; cytostatic; anti-HTV; vulnerary; antiallergic; hypotensive; immunosuppressive; anti-HTV; vulnerary; antiallergic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYMA-) UNIV MARYLAND BALTIMORE.
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                                                                                                                                                    1 GGLLVQDG 8
||: ||||
1 ggvcvgdg 8
                                                                                                                                                                                                                                                                                                                                                                                                 8 AA;
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                                                                                                                                                                                                                                                                                        75.0%;
                                                                                                                                                                                                                                                                Score 33; DB 21;
Pred. No. 3.2e+05;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                Length 8;
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В 8

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Y79128

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                                                                                                                                                                                                    intestine. Gastrointestinal inflammation conditions year and increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, and conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, bacterial overgrowth, whipple's disease, diseases with confestation, bacterial overgrowth, whipple's disease, diseases with concerned mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by collagenous colitis, inflammatory bowel disease marked by collagenous colitis, inflammatory bowel diseases marked by collagenous colitis, inflammatory bowel diseases with Fontan's operation, commonstally beautiful disease, without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, primarily to
                                                                                            Matches
                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeilosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gastrointestinal inflammation;
                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide antagonist
                                              _
                       ggglvqdg
                                                                                       Similarity 87. 7; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69pp;
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                                                                                                            80.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                       0;
                                                                                   Score 33; DB 21; Pred. No. 3.2e+05; 0; Mismatches 1;
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                                                                                                                            Length 8;
                                                                                       Indels
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RESULT
Y42460
  RESULT
Y42459
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                                                                                                                                                                                           Best Local Similarity
Matches 6; Conser
                                                                                                                                                                                                               Query Match
Human; guanylin; preprohormone; intestinal guanylate cyclase regulator; bacterium; heat stable enterotoxin; laxative; constipation.
                               Human
                                                    21-DEC-1999
                                                                         Y42460
                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                   activate intestinal guanylate cyclases. The guanyli used as a laxative in the treatment of constipation.
                                                                                                                                                                                                                                                                                                           This sequence represents a human guanylin preprohormone which is cleaved to generate a 15 amino acid mature peptide (Y42458). This sequence is the encoded protein from a composite DNA sequence isolated by probing a human duodenum cDNA library with the corresponding rat
                                                                                                                                                                                                                                                                                                                                                                                                                                          Wiegand RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y42459 standard; Protein; 115 AA
                                                                                            Y42460 standard; Protein; 115 AA
                                                                                                                                                                                                                                                                                      coding sequence. Guanylin is an intestinal guanylate cyclase regulator which has similarity to bacterial heat stable enterotoxins which
                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 1; 14pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US5969097-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human guanylin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Y42459;
                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUN-1992;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                      Isolated protein used as a laxative in
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (SEAR ) SEARLE & CO G D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human;
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                                                                                                                                                           1 GGLLVQDG
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                                                                                                                                                ggvtvqdg
                                                                                                                                                                                                                                                                                                                                                                                                           1999-590442/50
DB; Z22677.
                              guanylin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         guanylin;
                                                                                                                                                                                                                                               115 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nylin; preprohormone; intestinal guanylate cyclase regulator;
heat stable enterotoxin; laxative; constipation.
                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                          Currie
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                                                   (first entry)
                                                                                                                                                                     8
                                                                                                                                                 27
                              preprohormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92US-0903029
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                preprohormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ′label= unknown
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G
                                                                                                                                                                                                      80.5%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "encoded by
                                                                                                                                                                                                                                                                                                                                                                  English.
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                           KF;
                               sequence.
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                                                                                                                                                                                                      No.
                                                                                                                                                                                                     DB
37;
                                                                                                                                                                                                                                                                                                                                                                                      the treatment of constipation
                                                                                                                                                                                                                                                                             The guanylin peptide can
                                                                                                                                                                                                                20;
                                                                                                                                                                                           1;
                                                                                                                                                                                                               Length 115;
                                                                                                                                                                                           0;
                                                                                                                                                                                           Gaps
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Best Local Similarity 75.0%;
Matches 6; Conservative
Recombinant fiber protein used for creating vectors for delivering a desired gene to a cell with minimal ectopic infection, comprises an amino terminus of an adenoviral fiber protein and a trimerization
                                                     Wickham TJ, Kovesdi I,
                                                                                                                                                                                                                                                                                                                                                                                               This sequence represents a human guanylin preprohormone which is cleaved to generate a 15 amino acid mature peptide (Y4245B). Guanylin is an intestinal guanylate cyclase regulator which has similarity to bacterial heat stable enterotoxins which activate intestinal guanylate cyclases. The guanylate can be used as a laxative in the treatment of constipation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wiegand RC, Currie MG, Fok
                                    WPI; 2000-271459/23.
                                                                      (GENV-) GENVEC INC.
                                                                                       11-SEP-1998;
28-MAY-1999;
                                                                                                                10-SEP-1999;
                                                                                                                                23-MAR-2000
                                                                                                                                                   WO200015823-A1.
                                                                                                                                                                Human adenovirus type 9.
                                                                                                                                                                                   Adenovirus; adenoviral; Ad; fibre knob; fibre protein; gene therapy; infection; virion.
                                                                                                                                                                                                          Human adenovirus type 9 fibre knob protein sequence SEQ ID NO:3.
                                                                                                                                                                                                                           12-JUL-2000 (first entry)
                                                                                                                                                                                                                                                             Y82497 standard; protein; 362 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 2; 14pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isolated protein used as a laxative in the treatment of constipation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-590442/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SEAR ) SEARLE & CO G D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US5969097-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                      1 GGLLVQDG 8
||: ||||
20 ggvtvqdg 27
                                                                                                                                                                                                                                                                               10
                                                                                                                                                                                                                                                                                                                                                                                115 AA;
                                                                                      9805-0099851.
9905-0136529.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9205-0903029
                                                                                                               99WO-US20728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9205-0903029
                                                     Roelvink PW,
                                                                                                                                                                                                                                                                                                                                        Score 33; DB 20; Length 115;
Pred. No. 37;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KF;
                                                     Bruder JT;
                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                            RESULT
Y68643
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  Query Match
Best Local S
Matches 6
  WPI; 2000-171149/15
                  Havenga M, Vogels R,
                                  (INTR-) INTROGENE BV.
                                                   08-JUL-1998;
                                                                    08-JUL-1999;
                                                                                     20-JAN-2000.
                                                                                                     WO200003029-A2.
                                                                                                                               Misc-difference
                                                                                                                                                                                                                 05-MAY-2000 (first entry)
                                                                                                                                                                                                                                                    Y68643 standard; Protein; 377
                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                        Adenovirus.
                                                                                                                                                                                                                                                                   11
                                                                                                                                                                                                                                                                                            1 GGLLVQDG 8
||| :|||
67 ggltlqdg 74
                                                                                                                                                                                                                                                                                                                             Similarity 75.
                                                                                                                                                                                                                                                                                                                                                                       362 AA;
                                                    98EP-0202297
                                                                    99WO-NL00436
                                                                                                                                                                                                                                                                                                                                      80.5%;
75.0%;
                                                                                                                                                                                                                                                    A
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cc amino acid residue within the region corresponding to the AB loop or FG loop of the wild type adenovirus (Ad) 5 fibre protein, and where the recombinant fibre protein trimerises when corresponding to residue postting at least one amino acid residue to residue postting at least one amino acid residue (Ad) 5 fibre protein trimerises when corresponding to residue postting at least one amino acid residue (Ad) 442,449-454, 458 460,462,465,467,468,409,412-417,482,485,467,492,505-512,515,517,519,521-528,533,535,537-549,551,533,555,559-568,580 or 581 of the wild-type Ad5 fibre protein, and where ccll. (I) are used for creating vectors which are useful in a variety of gene-transfer applications, in vitro and in vivo, for delivering a desired gene to a cell with minimal ectopic infection, an approach known as alternative targeting. (I) can be used in receptor-ligand sasays and as adhesion proteins in vitro or in vivo. The recombinant cc fibre protein permits more efficient production and construction of safer vectors for gene-transfer applications. The present sequence, which is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                 Chimaeric adenovirus; gene therapy; antigenicity; fiber protein; serotype 9; penton protein; hexon protein.
                                                                                                                                                                                                                                                                                                                                                                                                                 Amino acid sequence of the fiber protein of Adenovirus serotype 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes a recombinant fibre protein (1) comprising an amino terminus of an adenoviral fibre protein and a trimerisation domain. The trimerisation domain comprises; (a) an adenoviral fibre knob domain having a mutation affecting at least one adenoviral fibre knob domain having a mutation affecting at least one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 45-46; 69pp; English.
1..29ion/Qualifiers
1..29 inote- "part of the tail of adenovirus serotype 5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 33; DB 21; I
Pred. No. 1.2e+02;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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RESULT 12
Y68659
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC v68642-70 represent the amino acid sequences of the fiber proteins CC of Adenovirus serotypes 8, 9, 13, 14, 20, 23, 24, 25, 27, 28, 29, 30, CC 32, 33, 34, 35, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48, 49 and 51. CC The proteins are used in the course of the invention to construct CC chimaeric adenoviruses with reduced antigenicity. The chimaeric CC adenoviruses comprise at least part of a fiber protein of an adenovirus serotype providing the chimaeric virus with a desired host range and at CC least part of a penton or hexon protein from another, less antigenic, CC serotype. The chimaeric adenoviruses are useful for gene therapy, CC especially where repeated delivery is required. Adenoviruses of the CC invention are useful can be constructed to have a desired host range and CC adminished capability to raise neutralizing antibodies, an absence of, CC or decreased infection of, antigen presenting cells of the immune system CC (e.g. macrophages), and an ability to escape trapping in the liver very
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                      Chimaeric adenovirus; gene therapy; antigenicity; fiber protein; serotype 37; penton protein; hexon protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-MAY-2000
Y68642.70 represent the amino acid sequences of
                               Example 2;
                                                         New chimaeric adenoviruses containing a genome derived from different adenovirus serotypes, useful in gene therapy -
                                                                                                                                                                                               08-JUL-1998;
                                                                                                                                                                                                                           08-JUL-1999;
                                                                                                                                                                                                                                                                                      WO200003029-A2
                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                             Adenovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Amino acid sequence of the fiber protein of Adenovirus serotype 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y68659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 2;
                                                                                                                                    Havenga M,
                                                                                                                                                                                                                                                        20-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y68659 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New chimaeric adenoviruses containing adenovirus serotypes, useful in gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity hes 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GGLLVQDG
                                                                                                      2000-171149/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ggltlqdg
                                                                                                                                                                INTROGENE BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fig 7; 92pp;
                             Fig 7; 92pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377 AA
                                                                                                                                    Vogels R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89
                                                                                                                                                                                               98EP-0202297
                                                                                                                                                                                                                            99WO-NL00436
                                                                                                                                                                                                                                                                                                                                Location/Qualifiers 1..29
                                                                                                                                                                                                                                                                                                                  /note= "part of the tail of adenovirus serotype
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80.5%;
75.0%;
                                                                                                                                    Bout A;
                             English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 33; DB 21;
Pred. No. 1.3e+02;
1; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ⋛
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g a genome derived from different therapy -
 the fiber proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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RESULT
Y68662
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of Adenovirus serotypes 8, 9, 13, 14, 20, 23, 24, 25, 27, 28, 29, 30, 23, 33, 34, 35, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48, 49 and 51. The proteins are used in the course of the invention to construct chimaeric adenoviruses with reduced antigenicity. The chimaeric adenoviruses comprise at least part of a fiber protein of an adenovirus serotype providing the chimaeric virus with a desired host range and at 1 least part of a penton or hexon protein from another, less antigenic, 20 serotype. The chimaeric adenoviruses are useful for gene therapy, 21 cespecially where repeated delivery is required. Adenoviruses of the 22 invention are useful can be constructed to have a desired host range and 22 a diminished capability to raise neutralizing antibodies, an absence of, 22 cor decreased infection of, antigen presenting cells of the immune system 22 cells and an ability to escape trapping in the liver 23 cells of the immune system 24 through increased target cell specificity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 6
Y68642-70 represent the amino acid sequences of the fiber proteins of Adenovirus serotypes 8, 9, 13, 14, 20, 23, 24, 25, 27, 28, 29, 32, 33, 34, 35, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48, 49 and The proteins are used in the course of the invention to construct chimaeric adenoviruses with reduced antigenicity. The chimaeric adenoviruses comprise at least part of a fiber protein of an adenov
                                                                                                                                     New chimaeric adenoviruses containing a genome derived from different adenovirus serotypes, useful in gene therapy
                                                                                                                                                                                WPI;
                                                                                                                                                                                                            Havenga M,
                                                                                                                                                                                                                                                                      08-JUL-1998;
                                                                                                                                                                                                                                                                                                  08-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chimaeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y68662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                        Example 2;
                                                                                                                                  adenovirus serotypes, useful in gene
                                                                                                                                                                                                                                        (INTR-) INTROGENE BV.
                                                                                                                                                                                                                                                                                                                                                           WO200003029-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Adenovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          serotype 42;
                                                                                                                                                                                                                                                                                                                               20-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                  Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Y68662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
les 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GGLLVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ggltlqdg
                                                                                                                                                                                2000-171149/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; Protein; 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       adenovirus; gene therapy; antigenicity; 42; penton protein; hexon protein.
                                                                                                     Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   380
                                                                                                                                                                                                            Vogels R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,
                                                                                                     7; 92pp;
                                                                                                                                                                                                                                                                      98EP-0202297
                                                                                                                                                                                                                                                                                                  99WO-NL00436
                                                                                                                                                                                                                                                                                                                                                                                                      /note= "part of the tail
237
                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                       /note= "not specified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80.5%;
75.0%;
                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fiber protein of Adenovirus serotype 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33;
                                                                                                                                  therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 21;
1.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                    of adenovirus serotype
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      fiber protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
    adenovirus
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RESULT 14
Y27892
                                     WPI; 1999-337740/28.
N-PSDB; X85048.
                                                                                                                                                                                   07-NOV-1997;
07-NOV-1997;
07-NOV-1997;
07-NOV-1997;
                                                                                                                                     17-NOV-1997;
                                                                                                (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                  17-NOV-1997;
07-NOV-1997;
07-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 6
                                                                                                                          17-NOV-1997;
                                                                                                                                                                07-NOV-1997
                                                                                                                                                      17-NOV-1997
                                                                                                                                                                           07-NOV-1997
                                                                                                                                                                                                                           07-NOV-1997;
                                                                                                                                                                                                                                                                        04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                          Human; secreted protein; fusion protein; gene therapy; protein therapy; diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia; developmental abnormality; foetal deficiency; blood; allergy; renal; inflammation; lschaemic; shock; Alzheimer's disease; restencis; AlDS; cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus; osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
                                                                                                                                                                                                                                                                                              20-MAY-1999
                                                                                                                                                                                                                                                                                                                W09924836-Al
                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y27892;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Y27892 standard; Protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           serotype providing the chimaeric virus with a desired host range and at least part of a penton or hexon protein from another, less antigenic, serotype. The chimaeric adenoviruses are useful for gene therapy, invention are iseful can be constructed to have a desired host range and decreased infection of, antigen presenting antibodies, an absence of, e.g. macrophages), and an ability to escape trapping in the liver through increased target cell specificity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GGLLVQDG 8
||| :|||
82 991t1qdg 89
                                                                 , MS
                                                     KC, Ebner R, Endress
, Lafleur DW, Moore P!
SM, Shi Y, Soppet DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 75.0
                                                                                                                                                                                                                                                                                                                                                                                                                                      secreted protein encoded by
                                                                                                                   970S-0066095.
970S-0066089.
                                                                                                                                                970S-0064912
970S-0064983
970S-0064984
970S-0064985
970S-0064985
970S-0064988
970S-0066990
                                                                                                                                                                                                                             97US-0066100
97US-0064900
97US-0064908
                                                                                                                                        97US-0066094
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                     97US-0064911.
                                                                                                                                                                                                                                                                     98WO-US23435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80.5%;
75.0%;
                                                                   PA,
                                                               GA,
                                                  Wei Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 33; DB 21; I
Pred. No. 1.3e+02;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                              Feng P, Ja
Vi J, Olsen
                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                  malabsorption; gastritis; neoplasm.
                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ.
                                                          Janat F;
en HS, Rosen CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                   116.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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RESULT
Y91324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Le Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                              27-JUL-1998;
19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                          27-JUL-1999;
                                                                                                                                                                                                                                                                       vaccine; s
antibody;
                                                                                                                                                                                                                                W0200006736-A2
                                                                                                                                                                                                               10-FEB-2000.
                                                                                                                                                                                                                                                                                                                 Group B
                                                                                                                                                                                                                                                                                                                                 30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                        Y91324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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Ruben

Kyaw H,

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A05803 to A05872 encode proteins, polypeptides and peptides (given in Y91275 to Y91343) isolated from Group B Streptococcus (GBS), also known as Streptococcus agglactiae. The GBS polynucleotides and polypeptides have antibacterial activity. Immunogenic compositions comprising GBS polynucleotides or polypeptides can be used as vaccines and for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This sequence represents a secreted human protein encoded by the gene CC clone detailed in the descriptor line. The gene can be used to generate portion (e.g., X84924) for increasing the stability of the fused protein Fc as compared to the human protein only.

CC as compared to the human protein only.

CC are useful for preventing, treating or ameliorating medical conditions can be greated to gene therapy. Also, pathological conditions can be greated and the presence of mutations in the new polypeptides in a sample which cuses are described for each of the 125 polynucleotides, based on uses).
                                                                                                                                          Claim 1; Fig 1; 123pp;
                                                                                                                                                                             Streptococcal infections
                                                                                                                                                                                                                                      WPI; 2000-195299/17.
                                                                                                                                                                                                                                                                                                     (MICR-) MICROBIAL TECHNICS LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Streptococcus agalactiae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Group B Streptococcus; Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y91324 standard;
                                                                                                                                                                      Group B Streptococcus protein, eptococcal infections and for so
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1 ggvsvqdg 8
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disorders of the immune system and hyperproliferative disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; screening; ;
y; affibody; ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Streptococcus protein sequence SEQ ID NO:53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
6; Conserv
                                                                                                                                                                                                                                                                        Wells JM,
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                                                                                                                                                                                                                                                                                                                                             98GB-0016335.
99US-0125163.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein; 116 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibacterial.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunogen;
                                                                                                                                    English.
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75.0%;
                                                                                                                                                                                                                                                                Hanniffy
                                                                                                                                                                for screening
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         coccus agalactiae; protein antigen; detection; diagnosis; infection;
                                                                                                                                              useful as vaccine, for diagnosis of creening of antibodies or affibodies
                                                                                                                                                                                                                                                                  SB;
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. 57;
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CC treatment or prophylaxis of GBS infection. The polynucleotides and CC polypeptides can also be used in the detection of GBS and for screening CC gram positive bacterial cell envelope associated or secreted antigens in CC exemplification of the present invention.

XX SQ Sequence 116 AA;

Query Match P8.0%; Score 32; DB 21; Length 116; Best Local Similarity 62.5%; Pred. No. 58; Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0; Indels 59 991vledg 97

Query Match Score 32; DB 21; Length 116; Best Local Similarity 62.5%; Pred. No. 58; Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0; Search completed: June 13, 2001, 14:14:40

Search completed: June 13, 2001, 14:14:40
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                                   seq
poe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein search, using sw model
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        June 13, 2001, 14:10:47; Search time 130.61 Seconds (without alignments) 4.209 Million cell updates/sec
BLOSUM62
Gapop 10.0 , Gapext 0.5
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DTBSPH
T31100
T17459
A46279
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S62191
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H708161
S78561
S78561
F69947
H64732
S53916
F70597
A75554
C833333
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F83627
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                                                                                                                                                                            D70954
                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                    guanylin precursor
hypothetical glyci
5-methyltetrahydro
fiber protein - hu
fiber protein - hu
                              hypothetical prote
SUN4 protein precu
hypothetical prote
                ABC transporter, A
FixI protein - Rhi
                        hypothetical
ABC transport
                                                          probable nitrogen phage-related prot GMP reductase (EC
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CS3 pilin synthesi
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purH bifunctional
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
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73.2	73.2	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
157	105	769	516	396	394	394	315	304	248	248	248	198	196	196	169
2	N	N	N	۳	N	N	N	N	N	N	ب	N	N	N	2
в70655	B64804	в83307	E70779	KXBOZ	A81229	B82000	S27784	в59088	A33412	S01006	S01007	S06176	H81681	F71525	в70233
2-demethylmenaquin	ybfH protein - Esc	probable molybdopt	probable glpD1 pro	plasma protein Z -	1-deoxy-D-xylulose	1-deoxy-D-xylulose	phenylethanolamine	prolyl aminopeptid	cytotoxic T-lympho	cytotoxic T-lympho	granzyme F (EC 3.4	cytotoxic T-lympho	maf protein TC0628	hypothetical prote	hypothetical prote

## ALIGNMENTS

RESULT S42532

hypothetical protein 1 - Synechococcus sp.
C;Species: Synechococcus sp.
C;Date: 19-Mar-1997 #sequence\_revision 19-Mar-1997 #text\_change 05-Mar-1999
C;Accession: S42532
R;Jones, M.C.; Jenkins, J.M.; Smith, A.G.; Howe, C.J.
Plant Mol. Biol. 24, 435-448, 1994
A;Title: Cloning and characterisation of genes for tetrapyrrole biosynthesis A;Reference number: S42531; MUID:94169298
A;Accession: S42532

biosynthesis

from

A; Molecule type: DNA A; Residues: 1-403 <JON>

A; Status: preliminary

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A;Molecule type: DNA
A;Residues: 1-449 <STO>
A;Cross-references: GB:AE004452; GB:AE004091; NID:g9945968; PIDN:AAG03532.1; GSPDB:GN
A;Experimental source: strain PAO1
C;Genetics:
                                                                                                                                 A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, A;Reference number: A82950; MUID:20437337
A;Accession: F83627
                                                                                                                                                                                                R;Stover, C.K.; Pham, X.Q.; adman, S.; Yuan, Y.; Brody, .; Lory, S.; Olson, M.V. Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                hypothetical protein PA0142 [imported] - Pseudomonas aeruginosa (strain PA01) C;Species: Pseudomonas aeruginosa C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Note: the source is designated as Anacystis nidulans R2 (?Superfamily: Synechococcus hypothetical protein i; tetratricopeptide repeat homology F;283-316/Domain: tetratricopeptide repeat homology <TT2> F;317-350/Domain: tetratricopeptide repeat homology <TT3> F;351-384/Domain: tetratricopeptide repeat homology <TT3>
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F83627
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                                                                                                              A; Status: preliminary
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Best Local S
Matches 7
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215 GGLLVQEG 222
PA0142
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87
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . 5%;
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Larbig,
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K.; L
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RESULT 3

DTEBPH
purH blfunctional enzyme - Salmonella typhimurium (fragment)
purH blfunctional enzyme - Salmonella typhimurium (fragment)
purH blfunctional enzyme - Salmonella typhimurium
purH blfunctional enzyme - Salmonella typhimurium
C;Decies: Salmonella typhimurium
C;Date: 31-Mar-1993 #text_change 11-Jun-1999
C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 11-Jun-1999
C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 11-Jun-1999
C;Accession: S,1948
R;Chopra, A.K.; Peterson, J.W.; Prasad, R.
R;Chopra, A.K.; Peterson, J.W.; Prasad, R.
Biochim. Biophys, Acta 1090, 351-354, 1991
Biochim. Biophys, Acta 1090, 351-354, 1991
                                                                                                                                        A;Molecular type: DNA
A;Residues: 1-529 <FLA>
A;Residues: 1-529 <FLA>
A;Cross-references: EMBL:X51950; NID:942594; PIDN:CAA36212.1; PID:942595
A;Cross-references: EMBL:X51950; NID:942594; PIDN:CAA36212.1; PID:942595
A;Balattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, R;Balattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, A; Rose, D.J.; Mau, B; Shao, Y.
A; Rose, D.J.; Mau, B; Shao, Y.
A; Rose, D.J.; Mau, B; Shao, Y.
A; Title: The complete genome sequence of Escherichia coli K-12.
A;Reference number: A64720; MUID:97426617
A;Accession: A65208
A,Accession: A65208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     purH bifunctional enzyme - Escherichia coli

%;Contains: IMP cyclohydrolase (EC 3.5.4.10); phosphoribosylaminoimidazolecarboxamide
C;Species: Escherichia coli
C;Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 11-Jun-1999
C;Accession: B34193; S09571; A65208
K;Alba, A.; Mizobuchi, K.
J, Biol. Chem. 264, 21239-21246, 1389
A;Title: Nucleotide sequence analysis of genes purH and purD involved in the de novo p
A;Reference number: A92739; MUID:90078227
A;Accession: B34193
A;Recidues: 1-529 CAIBA
A;Residues: 1-529 CAIBA
A;Residues: 1-529 CAIBA
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A; Map position: 90 min
C; Superfamily: purH bifunctional enzyme
C; Keywords: hydrolase; multifunctional enzyme;
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Biochim. Biophys Acta 1090, 351.354, 1991
A:Title: Nucleotide sequence analysis of purH and purD genes fr
A:Reference number: $18488; MUID:92062738
A:Recession: $18488
A;Accession: $18488
A;Molecule type: DNA
A;Residues: 1-508 CCHO>
A;Cross-references: EMBL:M66160; NID:9154286; PIDN:AAA27197.1;
A;Cross-references: EMBL:M66160; NID:9154286; PIDN:AAA27197.1;
                                                                                                                                                                                                                                                                                                                                                                                                            A:Cross-references: EMBL.J05126; NID:g147419; PIDN:AAA24454.1; PID:g147420 R;Flannigan, K.A.; Hennigan, S.H.; Vogelbacker, H.H.; Gots, J.S.; Smith, J Mol. Microbiol. 4, 381-392, 1990 A;Fithe: Purine biosynthesis in Escherichia coli K12: structure and DNA sec A;Reference number: S09571; MUID:90286915 A;Recession: S09571
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Molecule type: DNA
Residues: 1-529 <BLAT>
Cross-references: GB:AE000473; GB:U00096; NID:g2367336; PIDN:AAC76980.1; PID:g1790439;
                                                                                                                           Status: preliminary; nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 85.4%; Score 35; Best Local Similarity 100.0%; Pred. No. Matches 7; Conservative 0; Mismatc
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Best Local Similarity 75.4
Matches 6; Conservative
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2; Mismatches
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Pred. No. 19;
Mismatches
                                                                                                                                     not shown;
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A; Residues: 1-532 <TIGR>
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385 GGLLVQD 391
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384 GGLLVQD 390
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llarity 100.0%;
Conservative
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A; Experimental source: strain K-12, substrain MG1655 C; Genetics: A; Gene: purH; purJ A; Gene: purH; purJ A; Manay Position: 90 min C; Superfamily: purH bifunctional enzyme C; Keywords: hydrolase; multifunctional enzyme; purin
  Query Match 85.4%;
Best Local Similarity 100.0%;
Matches 7; Conservative
    0;
  Score 35; DB 1;
Pred. No. 20;
0; Mismatches
                                                                                                  purine
                                       Length 529
                                                                                                  nucleotide biosynthesis; transf
0,
Gaps
ö
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phosphoribosylaminoimidazolecarboxamide formyltransferase/IMP cyclohydrolase VC0276 C;Species: Vibrio cholerae C;Date: 18-Aug-2000 #sequence\_revision 20-Aug-2000 #text\_change 15-Sep-2000 C;Accession: C82344 R;Heidelberg, J.F. Fisco R;Heidelberg, J.F.; Elsen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sell 1, R.R.; McKalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
A;Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.
A;Reference number: A82035; MUID:20406833
A;Accession: C82344 A:Map position: 1 C:Superfamily: purH bifunctional enzyme A;Status: preliminary A;Molecule type: DNA A;Residues: 1-530 <HRI> A;Residues: 1-530 <HRI> A;Cross-references: GB:AE004116; GB:AE003852; NID:g9654687; PIDN:AAF93451.1; GSPDB:GN A;Cross-references: GB:AE004116; GB:AE003852; NID:g9654687; PIDN:AAF93451.1; GSPDB:GN A;Experimental source: serogroup Ol; strain N16961; biotype EI Tor Gwinn, M.L.; Dodson, R H.; Dragoi, I.; Seller

0; Score 35; DB : Pred. No. 20; 0; Mismatches 0; 0; Gaps 0

2:

Length 530

purf bifunctional enzyme - Haemophilus influenzae (strain Rd KW20)

R/Contains: IMP cyclohydrolase (EC 3.5.4.10); phosphoribosylaminoimidazolecarboxamide

C/Species: Reamophilus influenzae

C/Date: Reamophilus influenzae

R/Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.; Kerlavage

Gocayne, J.D.; Scott, J.; Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weldman

D.M.; Brandon, R.C.; Fine, L.D.; Fritchman, J.L.; Fuhrmann, J.L.; Geoghagen, N.S.M.

Science 269, 496-512, 1995

A;Authbors: Gnehm, C.L.; McDonald, L.A.; Small, K.V.; Fraser, C.M.; Smith, H.O.; Vente

A;Title: Whole-genome random sequencing and assembly of Haemophilus influenzae Rd.

A;Reference number; A64000; MUJD:9530630

A;Recession: B64100

A;Status: nucleic acid sequence not shown; translation not shown

A;Cross=references: GB:U32770; GB:L42023; NID:g1573898; PIDN:AAC22544.1; PID:g1573904 C;Superfamily: purH bifunctional enzyme C;Keywords: hydrolase; multifunctional enzyme; purine nucleotide biosynthesis; transf

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RESULT 9
D70954
hypothetical (
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                                                                                                                                                                                                                                                                                                                       A; Reference number: A82950; A; Accession: D83347
                                                                                                                                                                                                                                                                                                                                                adman, S.; Yuan, Y.; Brody,
.; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A;Title: Complete genome sec
                                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: D83347
R; Stover, C.K.; Pham, X.Q.;
                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                              probable aminotransferase PA2394 [imported] - Pseudomonas aeruginosa (strain
C;Species: Pseudomonas aeruginosa
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A;Introns: 46/2; 105/3; 187/3; 283/1; 365/3; 444/2;
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A;Molecule type: DNA
A;Residues: 1-1034 <WIL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypothetical protein F44D12.1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
C;Accession: T22166
                                                                                                                                                                                                                                                                         A; Residues: 1-427 <STO>
                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:Z68298; PIDN:CAA92607.1; GSPDB:GN00022; CESP:F44D12.1
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Best Local
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 glycine-rich
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                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                     sequence of Pseudomonas aeruginosa PA01, an opportunistic path
50; MUID:20437337
                                                                                                                                                   82.9%;
87.5%;
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protein Rv3595c - Mycobacterium tuberculosis (strain H37RV)
                                                                                                                                                                                                                                                                                                                                                                                              Erwin, A.L.; Mizoguchi, S.D.; Warrener,
L.L.; Coulter, S.N.; Folger, K.R.; Kas,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
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Pred.
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Pred. No.
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Pred. No.
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Larbig, K.; Lim,
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                                                         A; Gene: purH;
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A; Map position: 18 min A; Map position: 18 min C; Superfamily: purH bifunctional enzyme C; Superfamily: purH bifunctional enzyme;
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A;Authors: Squres, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complete A;Reference number: A70500; MUID:98295987
A;Accession: D70954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J. Biol. Chem. 262, 8274-8287, 1987 A;Title: Cloning and characterization of a 12-gene cluster from Bacillus subtilis A;Reference number: A29326; MUID:87250425 A;Accession: A29183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Gene: Rv3595c
C;Superfamily: Phaseolus glycine-rich cell wall
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C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 20-Jun-2000
                                                                                                                 A;Cross-references: GB:Z99107;
A;Experimental source: strain 1
                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-512 <KUN>
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A; Residues: 1-512 <EBB>
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N;Contains: IMP cyclohydrolase (EC 3.5.4.10);
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A;Experimental source: strain H37Rv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         262, 8274-8287, 1987
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Pred. No.
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27;
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purine nucleotide biosynthesis; transf

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guanylin precursor [validated] - human
C.Species: Homo sapiens (man)
C.Date: 21-Sep:1993 #sequence_revision 26-May-1995 #text_change 08-Dec-2000
C.Date: 21-Sep:1993 #sequence_revision 26-May-1995 #text_change 08-Dec-2000
                                                                                          RESULT
A46279
                                                                                                                                                                                                                                                                                                                                                                                                                                   polyprotein - tomato
c;Species: Lycopersicon esculentum (tomato)
c;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 11-May-2000
c;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 11-May-2000
c;Accession: T17459
R;Parniske, M; Jones, J.D.
Proc. Natl. Acad. Scil. U.S.A. 96, 5850-5855, 1999
A;Title: Recombination between diverged clusters of the tomato Cf-9 plant di
A;Reference number: Z18801; MJD1:99254130
A;Accession: T17459
                                                                                                                                                                         В
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A;Molecule type: DNA
A;Residues: 1-1542 CARS
A;Cross-references: EMBL:AF119040; NID:g4235640; PID:g4235644; PIDN:AAD13304.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein H11E01.3 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
G;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 18-Feb-2000
C;Accession: T33100
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A.Introns: 73/2; 120/1; 178/3; 227/2; 262/1; 300/2; 345/1; 1430/3; 1468/2
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A;Gene: CESP:HllE01.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-1510 <GET>
A;Residues: 1-1510 <GET>
A;Cross-references: EMBL:AF067222; PIDN:AAC17017.1; GSPDB:GN00028; CESP:H11E01.3
A;Experimental source: strain Bristol N2; clone H11E01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Accession: T33100
R;Geisel, C.; Wamsley, P.
submitted to the EMBL Data Library, May 1998
A;Description: The sequence of C. elegans cosmid H11E01
A;Reference number: Z21282
A;Accession: T33100
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Best Local Similarity 75.0
Matches 6; Conservative
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Best Local Similarity 85.7
Matches 6; Conservative
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75.0%;
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1; Mismatches
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Pred. No. 32;
1; Mismatches
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Pred. No. 1e+02;
2; Mismatches
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32;
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le+02;
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A70514
                                                                                                                                    A;Cross-references: GB:297559; GB:AL123456; NID:g3261820; PIDN:CAB10721.1; PID:g32618
A;Experimental source: strai H37Rv
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Query Match
Best Local Similarity
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                                                                                                    PE_PGRS; Rv2126c
                                                                            collagen alpha 1(V) chain; fibrillar
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hypothetical glycine-rich protein Rv2126c - Mycobacterium tuberculosis (strain H37RV) C: Species: Mycobacterium tuberculosis C: Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 20-Jun-2000 C: Accession: A70514 Forch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Gordon; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamiin, N.; Holroyd, Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998
A: Authors: Squares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A.; Title: Deciphering the biology of Mycobacterium tuberculosis from the complete geno A; Reference number: A70504
A; Residues: 170504
A; Residues: 170506; MUID:98295987
A; Residues: 17256 CCD.
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A. Residues: 1-115 (DEL)
A. Cross-references: GB:M95174; NID:g306823; PIDN:AAA58625.1; PID:g306824
A. Cross-references: GB:M95174; NID:g306823; PIDN:AAA58625.1; PID:g306824
A. Note: sequence extracted from NCBI backbone (NCBIN:115377, NCBIP:115378)
R. Wiegand, R.C.; Kato, J.; Huang, M.D.; Fok, K.F.; Kachur, J.F.; Currle, M.C
FEBS Lett. 311, 150-154, 1992
A. FILLe: Human guanylin: cDNA isolation, structure, and activity.
A. Reference number: S29228; MUID:93011964
A. Rocession: S29228
A. Accession: S29228
A. Accession: S29228
A. HOLE
A. HUE
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A;Residues: 22-68 < KUND
A;Experimental source: plasma
A;Note: amino-terminal sequencing of mature
C;Comment: Guanylin is an endogenous ligand
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C;Superfamily: guanyin
C;Keywords: hormone; intestine
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-115/Product: guanylin #status experimental <MAT>
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R;Kuhn; M.; Raida, M.; Adermann, K.; Schulz-Knappe, P.; Gerzer, R.; Heim, J.M.; Forss
FEBS Lett. 318, 205-209, 1993
A;Title: The circulating bloactive form of human guanylin is a high molecular weight
A;Reference number: S29807; MUID:93178628
A;Accession: S29807
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A;Title: Precursor structure, expression, and tissue distribution A;Reference number: A46279; MUID:93028409
A;Accession: A46279
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Best Local Similarity 75.0%;
Matches 6; Conservative
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75.0%;

Score 33; Pred. No

DB 2; 24;

Length

collagen carboxyl-terminal homolo

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RESULT 15
5-methyltetrahydropteroyltriglutamate--homocysteine S-methyltransferase (EC 2.1.1.14) -
N.Alternate names: cobalamin-independent methionine synthase
C;Species: Methanobacterium thermosutotrophicum
C;Oate: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 20-Jun-2000
C;Accession: $62191
R;Vaupel, M.; Dietz, H.; Linder, D.; Thauer, R.K.
Eur. J. Blochem. 236, 294-300, 1996
A;Title: Primary structure of cyclohydrolase (Mch) from Methanobacterium thermoautotroph
A;Reference number: $62190; MUID:96184910
A;Resioues: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Resioues: 1-319 <VAUJ
A;Cross-references: EMBL:x92082; NID:g1103706; PIDN:CAA63062.1; PID:g1103707
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1995
C;Genetics:
A;Start codon: TTG
C:Superfamily: 5-methyltetrahydropteroyltriglutamate--homocysteine S-methyltransferase
C;Keywords: methyltransferase
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Search completed: June 13, 2001, 14:10:48 Job time: 149 sec
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118 GGLLIGDG 125
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80 GGMMVKDG 87
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    Mismatches

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Sign (USD10)

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  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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PLXX_DEIRA
ICEA_XENIA
ICEA_XENIA
DXR_NEIMA
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METE_METTM
FIBP_ADE09
CS32_ECOLI
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30 73.2 396 1 AGS_AGRRH 30 73.2 397 1 AABP_HUMAN 30 73.2 478 1 NUON_RHOCA 30 73.2 547 1 ATPA_TOBAC 30 73.2 543 1 FIBP_ADECC 30 73.2 590 1 VPP_BPP2 30 73.2 757 1 RRP1_IABEI 30 73.2 757 1 RRP1_IAFON 30 73.2 757 1 RRP1_IAFON 30 73.2 757 1 RRP1_IAFON	73.2 543 1 73.2 543 1 73.2 543 1 73.2 543 1 73.2 543 1 73.2 593 1 73.2 757 1 73.2 757 1 73.2 757 1
396 478 5478 543 1 543 1 757 1 757 1	396 1 AGS_AGRRH 397 1 A2BP_HUMAN 478 1 NUON_RHOCA 478 1 NUON_RHOCA 507 1 ATPA_TOBAC 543 1 FIBP_ADECC 573 1 VPP_BPP2 757 1 RRP1_IAANN 757 1 RRP1_IAFOM 757 1 RRP1_IAFOM 757 1 RRP1_IAGU2
ے بر بیر میر نیز	1 AGS_AGKH 1 AGS_AGKH 1 NUON_RHOCA 1 NTOA_TOBAC 1 FIBP_ADECC 1 VPP_BPP 1 VPP_BPP 1 RRP1_IABEI 1 RRP1_IABEI 1 RRP1_IAFOM 1 RRP1_IAGUO
AGB_HOWAN  AGBC_HOWAN  NUON_RHOCA  INUON_RHOCA  FIBP_ADECC  FIBP_ADECC  FIBP_ADECC  FIBP_ADECC  FIBP_ADECC  RFIBP_ADECC  RFIBP_ADECC  RRP1_IAANN  RRP1_IAANN  RRP1_IAFOM	
AGS_AGRKH AZBP_HUMAN NUON_RHOCA ATPA_TOBAC FIBP_ADECC FIBP_ADECC FIBP_ADECC FIBP_BPP2 VPP_BPP2 RRP1_IABEI RRP1_IAFON RRP1_IAGUOM RRP1_IAGUOM	
	P20 P20 P50973 P50973 Q65961 P22230 Q95689 P25479 P21426 P16571 P16503

## ALIGNMENTS

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RESULT 2
PUR9_SALTY
ID PUR9_SALTY
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Best Local S
Matches 7
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SEQUENCE FROM N.A.

MEDLING-94169298; PubMed-8123787;

Jones M.C., Jenkins J.M., Smith A.G., Howe C.J.;

Jones M.C., Jenkins J.M., Smith A.G., Howe C.J.;

"Cloning and characterisation of genes for tetrapyrrole biosynthesis from the cyanobacterium Anacystis nidulans R2.";

Plant Mol. Biol. 24:435-448(1994).

-I- SIMILARITY: IN THE N-TERMINAL, STRONG TO H.INFLUENZAE HI0653.

-I- SIMILARITY: CONTAINS 5 TPR REPEATS.

-I- CAUTION: IT IS UNCERTAIN WHETHER MET-1 OR MET-14 IS THE INITIATOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
17-JUL-1998 (Rel. 36, Last annotation update)
17-JUL-1998 (Rel. 36, Last annotation update)
17-JUL-1998 (Rel. 32, Last sequence update)
17-JUL-1998 (Rel. 32, Last se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
REPEAT
REPEAT
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (S or send an email to license@isb-sib.ch).
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REPEAT :
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Pfam; PF00515; TPR; 1.
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208 243
244 282
283 316
317 350
351 387
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       STANDARD;
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282 T
316 T
350 T
387 T
44998 MW;
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       PRT;
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       805
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REMEDINE-STOM N.A.

REMEDINE-3062738; pubmed=1954258;

RA MEDINE-3062738; pubmed=1954258;

RA Chopra A.K., Peterson J.W., Prasad R.;

**Mucleotide sequence analysis of purh and purb genes from Salmonella

RT typhimurium.";

RI SIOCHIM. Biophys. Acta 1090:351-354(1991).

CC :- CATALTTIC ACTIVITY: 10-FORMYLTSTANHYDROFOLATE + 5'-PHOSPHORIBOSYL-

CC :- CATALTTIC ACTIVITY: 1MP + H(2)O - 5-FORMANIDO-1-(5-PHOSPHORIBOSYL-

CC :- CATALTTIC ACTIVITY: 1MP + H(2)O - 5-FORMANIDO-1-(5-PHOSPHORIBOSYL-

CC :- CATALTTIC ACTIVITY: 1MP + H(2)O - 5-FORMANIDO-1-(5-PHOSPHORIBOSYL-

CC :- CATALTTIC ACTIVITY: 1MP + H(2)O - 5-FORMANIDO-1-(5-PHOSPHORIBOSYL-

CC :- PANTHAN: NINTH AND TENTH STEP IN DE NOVO PURINE BIOSYMPHESIS.

CC :- PANTHAN: NINTH AND TENTH STEP IN DE NOVO PURINE BIOSYMPHESIS.

CC :- PANTHAN: NINTH AND TENTH STEP IN DE NOVO PURINE BIOSYMPHESIS.

CC :- PANTHAN: NINTH AND TENTH STEP IN DE NOVO PURINE BIOSYMPHESIS.

CC :- PANTHAN: NINTH AND TENTH STEP IN DE NOVO PURINE BIOSYMPHESIS.

CC :- SANTLARITY: BELONGS TO THE PURH FAMILY.

CC :- SIMILARITY: BELONGS 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 7
                                                                                                                                                 PURP_ECOLI STANDARD; PRT; 529 AA.

P15639;

01-APR-1990 (Rel. 14, Created)

01-APR-1990 (Rel. 39, Last annotation update)
30-MAY-2000 (Rel. 39, Last annotation update)
BIFUNCTIONAL PURTURE BYOSVETHESIS PROTEIN PURH (INCLUDES:
PHOSPHORIBOSYLAMINOIMIDAZOLECARBOXAMIDE FORMYLTRANSFERASE (EC 2.1.2.3)
(AICAR TRANSFORMYLASE); IMP CYCLOHYDROLASE (EC 3.5.4.10) (INOSINICASE)
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PIR; S18488; DTEBPH,
StyGene; SG10320; purH,
InterPro; IPR002695; -.
Pfam; Pf01808; AICARFT_IMPCHas; 1.
Purine blosynthesis; Transferase; Hydrolase; Multifunctional enzyme.
NON.TER 1 1
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01-AUG-1992 (Rel. 23, Created)
01-AUG-1992 (Rel. 23, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
BIFUNCTIONAL PURINE BIOSYNTHESIS PROTEIN PURI [INCLUDES:
BHOSPHORISOSYLAMIONINIDAZOLECARBOXAMIDE FORMYLTRANSFERASE (EC 2.1.2.3)
(AICAR TRANSFORMYLASE); IMP CYCLOHYDROLASE (EC 3.5.4.10) (INOSINICASE)
(IMP SYNTHETASE) (ATIC)] (FRAGMENT).
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                           Escherichia coli.
Bacteria; Proteobacteria;
Escherichia.
NCBI_TaxID-562;
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Bacteria; Proteobacteria; gamma subdivision; Enterobacteriaceae;
                                                                                                                                       IMP SYNTHETASE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85.4%; Score 35; DB 1; Length 508; Similarity 100.0%; Pred. No. 10; Todels 7; Conservative 0; Mismatches 0; Indels
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                                               subdivision; Enterobacteriaceae;
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RP SEQUENCE OF 1-12.

RP SEQUENCE OF 1-12.

RP SEQUENCE OF 1-12.

RY SEQUENCE 97443975; PubMed=9298646;

RI "Comparing the predicted and observed properties of proteins encoded romain the predicted and observed properties of proteins encoded rin the genome of Escherichia coli k-12.";

RI Electrophoresis 18:1259-1313(1997).

CC 1- CATALYTIC ACTYVITY: 10 FORWALIDE = TETRAHYDROFOLATE + 5'-PHOSPHORIBOSYL-CC 5'-PHOSPHORIBOSYL-S'-FORWAMIDE = TETRAHYDROFOLATE + 5'-PHOSPHORIBOSYL-CC 5'-PHOSPHORIBOSYL'-S'-FORWAMIDE - TETRAHYDROFOLATE + CC CATIVITY: IMP + H(2)O = 5'-FORWAMIDE - PHOSPHORIBOSYL)

CC 1- PARHAN': NITHE IMP CYCLOHYDROLASE ACTIVITY RESIDES IN THE N-TERMINAL CC -!- SIMILARITY: BELONGS TO THE PURH FAMILY.

CC -!- SIMILARITY: BELONGS TO THE PURH FAMILY.

CC -!- SIMILARITY: BELONGS TO THE PURH FAMILY.
                                                                                                                                                                                   Query Match 85.4%; Score 35; Best Local Similarity 100.0%; Pred. No. Matches 7; Conservative 0; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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SEQUENCE FROM N.A.
MEDLINE-90078227; PubMed-2687276;
Miscobuchi K.;
Nucleotide sequence analysis of genes de novo purine nucleotide biosynthesis
J. Biol. Chem. 264:21239-21246(1989).
                                                                                                                                                                                                                                                                                                                           PIR, B34193; DTECPH.

ECOGENE: EG10795; purH.

ECOGENE: EG10795; purH.

InterPro; IPR002695; _IMPCHas; 1.

Pfam; PF01908; AICARFT_IMPCHas; 1.

Purine biosynthesis; Transferase; Hydrolase; Multifunctional enzyme.

SEQUENCE 529 AA; 57329 MW; DC034ED01915DA68 CRC64;
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EMBL; X51950; CAA36212.1; -.
EMBL; U00006; AAC43104.1; -.
EMBL; AE000473; AAC76980.1; -
PIR; B34193; DTECPH.
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MEDLINE-94089392; PubMed-8265357;
Blattner F.R., Burland V.D., Plunkett G. III,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Smith J.M.;
"Purine biosynthesis in Escherichia coli K12: structure and sequence studies of the purHD locus.";
Mol. Microbiol. 4:381-392(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Analysis of the Escherichia coli genome. IV. DNA sequence of the region from 99.2 to 92.8 minutes," ... which is the Nucleic Acids Res. 21.5408-5417(1993).
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Flannigan K.A., Hennigan S.H., Yogelbacker H.H., Gots J.S.,
Smith J.M.;
                                                                          384
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Sofia H.J.,

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Length 529; Indels

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Gaps

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PUR9_BACSU
ID PUR9_BACSU
AC P12048;
DT 01-0CT-1989
DT 01-0CT-1989
DT 30-MAY-2000
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Best Local
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PUR9_HAEIN
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Purine biosynthesis; Transferase; Hydrolase; Multifunctional enzyme.
SEQUENCE 532 AA; 58349 MW; 9DE1E241DD238E87 CRC64;
                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fleischmann R.D., Adams M.D., White O., Clayton R.A., Kirkness E.F., Kerlavage A.R., Bult C.J., Tomb J.-F., Dougherty B.A., Merrick J.M., McKenney K., Sutton G., Fitzhugh W., Fields C.A., Gocayne J.D., Scott J.D., Shirley R., Liu L.-I., Glodek A., Kelley J.M., Weidman J.F., Phillips C.A., Spriggs T., Hedblom E., Cotton M.D., Utterback T.R., Hanna M.C., Nguyen D.T., Saudek D.M., Brandon R.C., Fine L.D., Fritchman J.L., Fuhrmann J.L., Geoghagen N.S.M., Gonehn C.L., McDonald L.A., Small K.V., Fraser C.M., Smith H.O.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
30-NAY-2000 (Rel. 39, Last sequence update)
30-NAY-2000 (Rel. 39, Last sequence update)
BIFUNCTIONAL PURINE BIOSYNTHESIS PROTEIN PURH [INCLUDES:
PHOSPHORIBOSYLAMINOIMIDAZOLECARBOXAMIDE FORMYLTRANSFERASE (EC 2.1.2.3)
(AICAR TRANSFORMYLASE); IMP CYCLOHYDROLASE (EC 3.5.4.10) (INOSINICASE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-RD / KW20 / ATCC
MEDLINE-95350630; PubMed
                                                                                                                                                                                                                                                                              EMBL; U32770; AAC22544.1; -. TIGR; HI0887; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Influenzae Rd.";
Science 269:496-512(1995).
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Bacteria: Proteobacteria:
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PURH OR HI0887.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Whole-genome random sequencing and
influenzae Rd.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Venter J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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                                                                                                                                                                                                                                                                    InterPro;
                                                                                                                 387
                                                                                                                                          ب
                                                                                                                                                                                                                                                                                                                                                                                                                                               CATALYTIC ACTIVITY: 10-FORMYLTETRAHYDROFOLATE + 5'-PHOSPHORIBOSYL-5-AMINO-4-IMIDAZOLECARBOXAMIDE = TETRAHYDROFOLATE + 5'-PHOSPHORIBOSYL-5'-FORMAMIDO-4-IMIDAZOLECARBOXAMIDE.

5'-PHOSPHORIBOSYL-5-FORMAMIDO-4-IMIDAZOLECARBOXAMIDE.

CATALYTIC ACTIVITY: IMP + H(2)O = 5-FORMAMIDO-1-(5-PHOSPHORIBOSYL)

IMIDAZOLE-4-CARBOXAMIDE.

PATHWAY: NINTH AND TENTH STEP IN DE NOVO PURINE BIOSYNTHESIS.

POMMAIN: THE IMP CYCLOHYDROLASE ACTIVITY RESIDES IN THE N-TERMINAL
                                                                                                                                                                                                                                                                                                                                                                                                                         REGION (BY SIMILARITY).
SIMILARITY: BELONGS TO THE PURH FAMILY.
                                                                                                                 GGLLVQD
                                                                                                                                          GGLLVQD
                                                                                                                                                                              Similarity
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                                                                                                                                                                                                                                                                    IPR002695;
 (Rel.
(Rel.
(Rel.
                                                                                                                                                                  Conservative
                                                                                                                 393
                                                   STANDARD;
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 39,
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                                                                                                                                                                            85.4%;
 Created)
Last seq
Last ann
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 sequence update) annotation updat
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                                                                                                                                                                            Score 35;
Pred. No.
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                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 assembly of Haemophilus
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10;
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RESULT
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Query Match
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Matches 6
GUAN_HUMAN STANI
002747;
01-JUL-1993 (Rel. 26
01-JUL-1993 (Rel. 26
01-OCT-2000 (Rel. 46
GUANYLIN PRECURSOR (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; J02732; AAA22683.1; EMBL; AF011544; AAB72185.1; EMBL; Z99107; CAB12472.1; PIR; A29183; DTBSPH. Subtilist; EG10710; purH.
                                                                                                                                                                                                                                                              LT 6
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Microbiology 142:3027-3031(1996).

-i- CAPALYTIC ACTIVITY: 10-FORMYLISTRAHYDROFOLATE + 5'-PHOSPHORIBOSYL-5-FORMANIDE - TETRAHYDROFOLATE + 5'-PHOSPHORIBOSYL-5-FORMANIDE - TETRAHYDROFOLATE + 5'-PHOSPHORIBOSYL-5-FORMANIDE - 5-FORMANIDE.

-i- CAPALYTIC ACTIVITY: IMP + H(2)0 - 5-FORMANIDO-1-(5-PHOSPHORIBOSYL)

-i- CAPALYTIC ACTIVITY: IMP + H(2)0 - 5-FORMANIDO-1-(5-PHOSPHORIBOSYL)

-i- DANHWAY: NINTH AND TENTH STEP IN DE NOVO PURINE BIOSYNTHESIS.

-i- DOMAIN: THE IMP CYCLOHYDROLASE ACTIVITY RESIDES IN THE N-TERMINAL
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MEDLING-87250425; PubMed-3036807;

Ebbole D.J., Zalkin H.;

"Cloning and characterization of a subtills encoding nine enzymes for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SubtiList; BULLO, INTERPROPERTY INFORMAS; I. Pfam; PF01808; AICARFT IMPCHAS; I. Purine biosynthesis; Transferase; Purine AA; 55739 MW; 7FF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BIFONCTIONAL PURINE BIOSYNTHESIS PROTEIN PURH [INCLIDES: PHOSPHORIBOSYLAMINOIMIDAZOLECARBOXAMIDE FORMYLTRANSFERASE (AICAR TRANSFORMYLASE); IMP CYCLOHYDROLASE (EC 3.5.4.10) (IMP SYNTHETASE) (ATIC)].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Borriss R., Porwollik S., Schroeter R.; "The 52 degrees-55 degrees segment of the Bacillus subtilis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bacillus/Staphylococcus
NCBI_TaxID=1423;
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Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Electronic Control of the Electroni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-168
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                                                                                                                                                                                                                                                                                                                                                                                                                                GGLLIQD
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    (Rel. 26, Created)
(Rel. 26, Last sequence update)
(Rel. 40, Last annotation update)
ECURSOR (GUANYLATE CYCLASE ACTIVATOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                       STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 34; DB Pred. No. 16; 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;e; Hydrolase; Multifunctional enzyme.
7FD6B0FE5485234C CRC64;
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16;
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GUCA2A OR GUCA2.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
MCBI\_TaxID=9606;

Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.

SEQUENCE FROM N.A.

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Query Match
                                                                                                                                                                                                                                                                                                                     EMBL; M97496; AAA35915.1; -.
EMBL; M95174; AAA58625.1; -.
PIR; A66279; A64279.
PIR; S29228; S29228.
PDB; 1GNA; 30-SED-94.
PDB; 1GNA; 30-SED-94.
MIM; 139392; --
                                                                         DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                         PRO0774; GUANYLIN. Signal; 3D-structure. SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a cleave the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entitles requires a license agreement (See http://www.isb-sib.or.send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIINE-93011964; PubMed-1327879; Wiegand R.C., Kathur J.F., Wiegand R.C., Kato J., Huang M.D., Fok K.F., Kathur J.F., Currie M.G.; "Human guanylin: cDNA isolation, structure, and activity."; "Human guanylin: cDNA isolation, structure, and activity."; [2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BIOCHEMISTY 3::13581-13592(1994).

BIOCHEMISTY 3::13581-13592(1994).

FINCTION: ENDOCENOUS ACTIVATOR OF INTESTINAL GUANYLATE CYCLASE.

TI STUMLATES THIS ENZYME THROUGH THE SAME RECEPTOR BINDING REGION AS THE HEAT-STABLE ENTEROTOXINS.

ITISSUE SPECIFICITY: HIGHLY EXPRESSED IN ILEUM AND COLON.

STABLE ENTEROTOXINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRUCTURE BY NMR OF 101-115.
MEDLINE-95034794; PubMed-7947768;
Skelton N.J., Garcia K.C., Goeddel D.V., Quan C., Burnier J.D.;
"Determination of the solution structure of the peptide hormone guanylin: observation of a novel form of topological stereoisomerism.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-93178628: PubMed-8095028:
Kuhn M., Raida M., Adermann K., Schulz-Knappe P., Gerzer R.,
Heim J.-M., Forssmann W.-G.;
"The clrculating bloactive form of human guanylin is a high molecular
weight peptide (10.3 kbb)."
FEBS Lett. 318:205-209(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Precursor structure, guanylin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-93028409; PubMed-1409606;
de Sauvage F.J., Keshav S., Kuang W.J., Gillett N., Henzel W.,
Goeddel D.V.
                                                                                                                                                                                                                                                                         fam; PF02058;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 22-68.
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                                                                                                                                                                                                                                                                                                   IPR000879; -.
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107
115
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115
115
112
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                                                                            ME.
Score 33;
                                                                                                                                                HMW-GUANYLIN GUANYLIN.
                                                                      C644C03BAFFC26FA CRC64;
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DB 1;
Length 115;
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Matches

Similarity 62. 5; Conservative

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Indels

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Gaps

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70 GGMMVKDG 77

1 GGLLVQDG 8

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                 Query Match
Best Local
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE-96184910; PubMed-8617278;
WEDLINE-96184910; PubMed-8617278;
Vaupel M., Dietz H., Linder D., Thauer R.K.;
Primary structure of cyclohydrolase (Mch) from Methanobacterium
Thermoautotrophicum (strain Marburg) and functional expression of the
mch gene in Escherichia coll.";
mch gene in Escherichia coll.";
T. Biochem. 236:294-300(1996).
                                                                                                   Transferase;
METAL 2
METAL 2
                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to licenseeisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 3-24, AND CHARACTERIZATION.

MEDLINE-99398345; PUBMed-10469143;

SCHOOGDER I. Thauer R. K.;

SCHOOGDER I. Thouser R. K.;

"Methylcobalamin:homocysteine methyltransferase from Methanobacterium thermoautotrophicum. Identification as the mete gene product.";

Bur J. Biocham 263:789-796(1999).

"IF FUNCTION: CAFALYZES THE TRANSFER OF A METHYL GROUP FROM METHYLCOBALMUN AND METHYLCOBALMUNDE TO HOMOCYSTEINE RESULTING IN METHYLOUNINA NON METHYLCOBALMUNDE TO HOMOCYSTEINE RESULTING IN METHYLOUNINE FORMATION.

"I- COPACTOR: ZINC; BINDS ONE MOLE PER SUBUNIT (BY SIMILARITY).

"I- PATHYAN: TERMINAL STEP IN THE DE NOVO BIOSYNTHESIS OF METHYONINE."

"SIMILARITY; BELONGS TO THE VITAMIN-B12 INDEPENDENT METHYONINE.

SYNTHARSE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             METE_METIM STANDARD; PRT; 309 AA.
P55329;
01-OCT-1996 (Rel. 34, Created)
01-OCT-2000 (Rel. 40, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
PROBABLE METRYLCOBALAMIN:HOMOCYSTEINE METRYLTRANSFERASE (EC 2.1.1.-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Methanobatterium thermoautotrophicum (strain Marburg / DSM 2133).
Archaea; Euryarchaeota; Methanobacteriales; Methanobacteriaceae;
Methanothermobacter.
                                                                                     SEQUENCE
                                                                                                                                                                      InterPro; IPRO
Pfam; PF01717;
                                                                                                                                                                                                    EMBL; X92082; CAA63062.1; ALT_INIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=79929;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (METHIONINE SYNTHASE).
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203
285
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Methyltransferase; M
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Score 33; DB
Pred. No. 16;
3; Mismatches
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1; Mismatches
                                                                                 se: Methionine biosynthesis;
ZINC (BY SIMILARITY).
ZINC (BY SIMILARITY),
ZINC (BY SIMILARITY),
522996A39DF1E31A CRC64;
                 16;
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Matches 6
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InterPro; IPR000931; ..
InterPro; IPR000939; ..
InterPro; IPR000978; ..
Pfam; PF00608; adeno_fiber2; 2.
Pfam; PF00541; adeno_fiber; 1.
PRINTS; PR00307; ADENOVSFIBRE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; X74659; CAA52723.1; -.
EMBL; X74658; CAA52722.1; -.
EMBL; X76706; CAA54127.1; -.
PIR; S37220; S37220.
PIR; S37220; S37220.
PIR; S37214.
PIR; S40092; S40092.
PIS; P11818; 1KNB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P36846;
01-JUN-1994 (Rel.
01-JUN-1994 (Rel.
15-DEC-1998 (Rel.
                                                                                                                                                                                                                    CS32_ECOLI STANDARD; PRT; 937 AA. P15484; P15485; P15486; P15487; P15484; P15487; P15487; P15484; P15487; P154
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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      SEQUENCE FROM STRAIN-PB176;
                                                                                                                                                       Escherichia coli.
Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE 362 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Virology 206:564-571(1995).
-I- FUNCTION: RECOGNIZES THE CELL
BETWEEN THE ADENOVIRUS CAPSID
                                                                                                                                   Escherichia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-TYPE 9 / ISOLATE HICKS, AND TYPE 1
MEDLINE-95133193; PubMed-7831811;
Pring-Akerblom P., Adrian T.;
"Characterization of adenovirus subgenus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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Viruses; dsDNA viruses,
VCBI_TaxID=10527, 28276;
                                                                                             NCBI_TaxID=562;
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75.0%;
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Pred. No.
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Matches 6
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SIGNAL 1 ?
CHAIN 2 937
CHAIN 181 753
CHAIN 317 753
CHAIN 451 753
CHAIN 452 753
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01-OCT-1996 (
01-OCT-1996 (
HYPOTHETICAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
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                                              SEQUENCE FROM N.A.
STRAIN-168 / JH642;
MEDLINE-95219086; PubMed-7704261;
MEDLINE-95219086; PubMed-7704261;
Takemaru K.-I., Mizuno M., Sato T., Takeuchi M.,
"Complete nucleotide sequence of a skin element rearrangement during sporulation in Bacillus sub Microbiology 141:323-327(1995).
                                                                                                                                                                                                                                                                            YQBK_BACSU
P45927;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con entitles requires a license agreement (See http://www.isb-sib.ch/ar or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-90158116; PubMed-2576094; Jalajakumari M.B., Thomas C.J., Halter R., Manning P.A. Talajakumari M.B., Thomas C.J., Halter R., Manning P.A. Tenes for biosynthesis and assembly of CS3 pili of CF enterotoxigenic Escherichia coli: novel regulation of production by bypassing an amber codon."; Mol. Microbiol. 3:1685-1695(1989).
           SEQUENCE FROM N.A. STRAIN-168 / JH642
                                                                                                                                                                     Bacillus subtilis.
Bacteria; Firmicutes; Ba
Bacillus/Staphylococcus
                                                                                                                                                                                                             YQBK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Outer membrane; Transmembrane;
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ALTERNATIVE PRODUCTS: FIVE PROTEIN ARE PRODUCED BY ALTER ALTERNATIVE PRODUCTS: FIVE PROTEIN REQUIRES THE SUPPRESSION O READTHROUGH OF AN INTERNAL AMBER CODON IN POSITION 754.

SIMILARITY: BELONGS TO THE FIMBRIAL EXPORT USHER FAMILY.
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                                                                                                                                                                                                                                                                                                                                                           GGILVYDG
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X16944; CAA34816.1;
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6; Conser
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           / JH642;
                                                                                                                                                                                                                        (Rel. 32, Created)
(Rel. 34, Last sequence update)
(Rel. 34, Last annotation update)
L 32.7 KDA PROTEIN IN SPOIIIC-CWLA
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Masuda
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Pred. No. 49;
1; Mismatches
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CS3 PILI SYNTHESIS 63 KDA PROTEIN.

CS3 PILI SYNTHESIS 63 KDA PROTEIN.

CS3 PILI SYNTHESIS 48 KDA PROTEIN.

CS3 PILI SYNTHESIS 33 KDA PROTEIN.

CS3 PILI SYNTHESIS 20 KDA PROTEIN.
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                                                                                         Takeuchi M.,
Takemaru
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excised by
Hosono
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RESULT CONTROL OF THE 
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Best Local S
Matches 5
                                                                                                          SEQUENCE FROM .... SEQUENCE FROM .... W3110; STRAIN-K12 / W3110; MSDLINE-94261430; PubMed-8202364; MSDLINE-94261430; PubMed T, Ishihama A.; Fujita N., Mori H., Yura T, Ishihama A.; Systematic sequencing of the Escherichia coli the 2.4-4.1 min (110,917-193,643 bp) region."; the 2.4-4.1 min (110,917-193,643 bp) region.";
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Submitted
[3]
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P15344; P78048;

01-APR-1990 (Rel. 14, Created)

101-APR-1990 (Rel. 14, Last sequence update)

30-MAY-2000 (Rel. 39, Last annotation update)

GMP REDUCTASE (EC 1.6.6.8) (GUANOSINE 5'-MONOPHOSPHATE

CXIDOREDUCTASE) (GUANOSINE MONOPHOSPHATE REDUCTASE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Medigue C., Moszer I., Viari A., Danchin A.;

Medigue C., Moszer I., Viari A., Danchin A.;

Manalysis of a Bacillus subtilis genome fragment using a co-operat

computer system prototype.";

Gene 165:GC37-GC51(1995).

I- SIMILARITY: STRONG, TO B. SUBTILIS XKDK.

I- CAUTION: REF.1 SEQUENCE DIFFERS FROM THAT SHOWN FROM POSITION

OWNARD AND IS SHORTER (226 AA) DUE TO A FRAMESHIFT.
SEQUENCE FROM N.A.
STRAIN-K12 / MG1655,
MEDLINE-97426617; Plumbed-9278503;
Blattner F.R., Plumbett G. III, Bloch C.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-89061679; PubMed-2904262;
Andrews S.C., Guest J.R.;
Nucleotide sequence of the gene encoding the Escherichia coli KIZ.";
Biochem. J. 255:35-43(1988).
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Bacteria; Proteobacteria;
Escherichia,
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SEQUENCE 3
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1 GGVLLEDG 278
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5; Conserv
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Pred. No. 25;
3; Mismatches
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   Perna N.T.,
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RESULT 12
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RY "Comparing the predicted and observed properties of proteins encoded ReT in the genome of Escherichia coli K-12.";

RI Electrophoresis 18:1259-1313(1997).

CC - FUNCTION: IT FUNCTIONS IN THE CONVERSION OF NUCLEOSIDES, AND IN NUCLEOSIDE DERIVATIVES OF G TO A NUCLEOTIDES, AND IN ALINEARING THE INVERCELLULAR BALANCE OF A AND G. NUCLEOTIDES.

CC MALIVAL ACTIVITY: NADPH + GUANOSINE 5'-PHOSPHATE - NADP(+) + CC - INDSINE 5'-PHOSPHATE + WH(3).

CC - SUBUNIT: HOMOTETRAWER.

CC - SIMILARITY: TO OTHER EUKARYOTIC AND PROKARYOTIC GMP REDUCTASE CC AND TO IMP DEHYDROGENASE.

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EMBL; D26562; CAB20312.1; -..
EMBL; AE000119; AAC73315.1; -..
EMBL; L28105; AAC36926.1; -..
EMBL; S01671; S01671.
PIR; S45182; S45182.
HSSP; P50097; 1AK5.
SUN4_YEAST
P53616;
01-OCT-1996
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Gregor J., Davis N.W., Kirkpatrick H.A., (
Mau B., Shao Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-K12 / EMG2;
MEDLINE-97443975; PubMed-9298646;
Link A.J., Robison K., Church G.M
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AC36926.1; -.
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RESULT 13
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Bacteria; Proteobacteria; al
Rhizobiaceae; Sinorhizobium.
NCBI_TaxID=382;
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"Sequencing a cosmid clone of Saccharomyces cerevisiae chromosome XIV reveals 12 new open reading frames (ORFs) and an ancient duplication of six ORFs.";
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STRAIN-S288C / FY1676;
STRAIN-S288C / FY1676;
MEDLINE-96021608; PubMed-8533472;
Bergez P., Doignon F., Crouzet M.;
"The sequence of a 44 420 bp fragment located on chromosome XIV from Saccharomyces cerevisiae.";
Yeast 11:967-974(1995).
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Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;

Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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                                                   Rhizobium meliloti (Sinorhizobium meliloti)
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                         alpha subdivision; Rhizobiaceae group;
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PIR; S3994; S39994.

PIR; S32847; S32847.

HSSP; Q27546; IMAS.

InterPro; IPR001757; InterPro; IPR001934; Pfam; PF00122; E1-E2_A

Pfam; PF001023; HMA; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYMBIOTIC NITROGEN FIXITIS A PUMP OF A SPECIFIC CATION INVOLVED IN SYMBIOTIC NITROGEN FIXATION. THE FOUR PROTEINS FIXA, FIXH AND FIXS MAY PARTICIPATE IN A MEMBRANE-BOUND COMPLEX COUPLING THE FIXI CATION PUMP WITH A REDOX PROCESS CATALYZED BY FIXG.

-!- CATALYTIC ACTIVITY: ATP + H(2)O = ADP + ORTHOPHOSPHATE.
-!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-!- SIMILARITY: BELONGS TO THE CATION TRANSPORT ATPASES FAMILY (E1-E2 ATPASES). SUBFRANILY IB.
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SEQUENCE FROM N.A.
STRAIN-RCR2011 / SU47;
MEDLINE-89123173; PubMed-2536685;
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1 GGLLVQDG
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                                                                                           This SWISS-PROT entry is copyright. It is produced through a collable between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentitied requires a license agreement (See http://www.isb-sib.ch/amor send an email to licenseeisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                     FAMILY S1; ALSO KNOWN AS THE ER GRANZYMES AND TO MAST CELL
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OF 01-NOV-1988 (Rel. 36, Last annotation update)

OF GRANNYME F PRECURSOR (EC 3.4.21.-) (CYTOTOXIC CELL PROTEASE 4) (CC)

DE (CTL SERINE PROTEASE 3) (CTA)

OF OR CTLA7 OR CTLA7 OR CCP4.

OR MAMBALIA; ENTER CHOOTEASE 3)

OF Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.

NCBI_TaxID=10090;

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Pfam; PF00089; trypsin; 1.
Pfam; PF00089; trypsin; 1.
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PROSITE; PS00134; TRYPSIN,HIS; 1
PROSITE; PS00135; TRYPSIN,SER; 1
PROSITE; PS00135; TRYPSIN,SER; 1
PROSITE; PS00136; TRYPSIN,SER; 2
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EMBL; X55988; CAA40306.1
EMBL; J03256; AAA7737.1
EMBL; J10956; S01006.5
EMBL; X14093; CAA32255.1
PIR; S01006; S01006.5
PIR; E2644; E26944.
PIR; B36172; B36172.
PIR; S24999; S24999.
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TISSUE-Spleen;
MEDLINE-91318146; PubMed-1861068;
MEDLINE-91318146, PubMed-1861068;
Jenne D.E., Zimmer M., Garcia-Sanz J.A., Tschopp J.F., Lichter P.;
Jenne D.E., Zimmer M., Garcia-Sanz J.A., Tschopp J.F., Lichter P.;
"Genomic organization and subchromosomal in situ localization of the
murine granzyme F, a serine protease expressed in CD8+ T cells.";
J. Immunol. 147:1045-1052(1991).
SEQUENCE FROM N.A.
MEDIINE-91350184; PubMed-1880801;
Prendergast J.A., Pinkoski M., Wolfenden A., Bleackley R.C.;
Prendergast J.A., Pinkoski M., Wolfenden Cell proteinase genes
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EMBL; M36902; AAA37488.1; EMBL; X56989; CAAA0307.1; EMBL; M96930; AAA37741.1; EMBL; J03257; AAA37738.1; EMBL; X12823; CAA31310.1; EMBL; X14094; CAA32256.1;
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SEQUENCE OF 21-45.

MEDILINE-93044519; Pubmed-2152187;

Jiang S., Hasselkus-Light C.S., Ojcius D.M., Young J.D.E.;

"Purification of a membrane-associated serine esterase from murine cytotoxic T lymphocytes by a single reverse-phase column.";

Protein Expr. Purif. 1:77-80(1990).

-I- FUNCTION: THIS ENZYME IS PROBABLY NECESSARY FOR TARGET CELL LYSIS IN CELL-MEDIATED IMMUNE RESPONSES.

-I- SUBCELLUAR LOCATION: CYTOPLASMIC GRANULES OF CYTOLYTIC
MEROPS; S01.401; ...
MGD; MGI:109254; Gzmf.
MGD; MGI:109254; ...
InterPro; IPR001254; ...
InterPro; IPR001314; ...
InterPro; IPR001314; ...
Pfam; PF00089; trypsin; 1.
PRINTS; PR00722; CHYMOTRYPSIN.
PROSITE; PS00134; TRYPSIN_HIS; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
PROSITE; PS00135; TRYPSIN_SER; 1.
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MEDIIND-89036001; PubMed-3053963;

Kwon B.S., Kestler D., Lee E., Wakulchik

"Isolation and sequence analysis of serin
cytolytic T lymphocytes.";

Exp. Med. 168:1839-1854(1988).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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MEROPS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Masson D., Tschopp J.;
"A family of serine esterases in lytic granules of cytolytic T lymphocytes.";
Cell 49:679-685(1987).
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MEDLINE=87215932; PubMed=3555842;
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Jenne D.E., Rey C., Haefliger J.-A., Qiao B.-Y.,
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serine protease cDNAs from mouse
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N'-LINKED (GLCNAC. . .) (POTENTIAL).
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Search completed: June 13, 2001, 14:21:48 Job time: 808 sec

GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

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Minimum DB
Maximum DB
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sp_bacteria:*
sp_fung1:*
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sp_organelle:*
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sp_vertebrate:*
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Q20398
Q9XE26
006287
Q9LHD1
061802
Q9ZS84
P97157
                            Q9RW35
Q9K8J8
Q9K5459
Q74Q3Q
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Q9KV80
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                       053884 mycobacteri
09rw35 deinococcus
09rk35 bacillus ha
005459 mycobacteri
074030 methanobact
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09kv80 vibrio chol
09kr80 vibrio chol
09srr3 arabidopsis
020398 caenorhabdi
09xe26 oryza sativ
006287 mycobacteri
09lhd1 arabidopsis
061802 caenorhabdi
09zs84 lycopersico
p97157 escherichia
064823 human adeno
064823 human adeno
004827 allium tube
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
mycobacter1
methanobact
deinococcus
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P96224 mycobacteri		Q9mun9 mesostigma	Q9rii6 streptococc	_	$\mathbf{-}$		*	O68180 uncultured	049296 arabidopsis	Q91116 streptomyce	Q9jx33 neisseria m			Q48556 lactobacill		O52558 amycolatops	7			050741 borrelia bu	N	-	Q9la54 escherichia	æ	Q91wp3 oryza sativ

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01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-0CT-2000 (TrEMBLrel. 15, Last annotation update)
PHOSPHORIBOSYLAMINOIMIDAZOLECARBOXAMIDE FORMYLTRANSFERASE AND IMP
                                                                                                                 Waterston R.;
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF170176; AAF33520.1; -.
SEQUENCE 529 AA; 57467 MW; 5D713504AD644778 CRC64;
                                                                                                                                                                                                                                                                                          "The sequence of Salmonella typhimurium fragment STMF1 (I-Ceu-F)."; Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. STRAIN-SGSC1412;
Latreille, P;
                                                                                                                                                                       SEQUENCE FROM N.A. STRAIN-SGSC1412;
                                                                                                                                                                                                             "The Salmonella typhimurium Genome Sequencing Project."; Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. STRAIN-SGSC1412;
                                                                                                                                                                                                                                                                                                                                                                                                                                         CYCLOHYDROLASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9L9H7
                                                                                                                                                                                                                                          WashU;
                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=99287;
                                                                                                                                                                                                                                                                                                                                                                                        Salmonella.
                                                                                                                                                                                                                                                                                                                                                                                                 Bacteria; Proteobacteria; gamma subdivision; Enterobacteriaceae;
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384 GGLLVQD 390
                1 GGLLVQD 7
                                                      Conservative
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                                                   85.4%; Score 35; DB
100.0%; Pred. No. 58
tive 0; Mismatches
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O9SRR3
O1-MAY-2000 (TrEMBLrel. 1
O1-MAY-2000 (TrEMBLrel. 1
O1-MAY-2000 (TrEMBLrel. 1
                                                                                                                                                                                            SEQUENCE FROM N.A.

STRAIN-CV. COLUMBIA;

Lin X., Kaul S., Town C.D., Benito M., Creasy T.H., Haas B.,

Ronning C.M., Koo H., Fujii C.Y., Utterback T.R., Barnstead M.E.,

Bownan C.L., White O., Nierman W.C., Fraser C.M.;

Arabidopsis thallana chromosome III BAC F2103 genomic sequence.*,

Submitted (CCT-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; AC009853; AMF02157.;

EMBL; AC009853; ASP02157.;

SEQUENCE 620 AA; 68199 MW; 1F2D06A4A3972D9E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F2103.24 PROTEIN.
F2103.24.
Arabidopsis thaliana (Mouse-ear cress).
Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;
Brassicales; Brassicaceae; Arabidopsis.
NCBI_TaxID-3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

STRAIN-EI TOR NI6961 / SEROTYPE 01;

MEDLINE-20406833; PubMed-10952201;

MEDLINE-20406833; PubMed-10952201;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,

Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers P.,

MCDODAID L., Utterback T., Fleishmann R.D., Niermann W.C., White O.,

Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,

Fraser C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09KV80; PRELIMINARY; PRT; 530 AA.

09KV80;
01-CCT-2000 (TrEMBLTel. 15, Created)
01-CCT-2000 (TrEMBLTel. 15, Last sequence update)
01-CCT-2000 (TrEMBLTel. 15, Last annotation update)
PHOSPHORIBOSYLAMINOIMIDAZOLECARBOXAMIDE FORMYLTRANSFERASE/IMP
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EMBL; AE004115; AAF93451.1;
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NCBI_TaxID=666;
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Similarity 100.0%;
7; Conservative (
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Last sequence update)
Last annotation update)
                     Score 35; DB
Pred. No. 70;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             core 35; DB 2
Pred. No. 58;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BE64A6D4C42FA617
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                                                                                     DB 10; Length 620;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ν,
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                     0,
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                                                                                                                                                                                                                                                                                                       genomic sequence.";
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                     Indels
            0;
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            Gaps
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Best Local Similarity 100.0%;
Matches 7; Conservative
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Q20398;
01-NOV-1996 (TrembLrel. 01, C)
01-NOV-1996 (TrembLrel. 01, Li
01-JUN-2000 (TrembLrel. 14, Li
F44D12.1 PROTEIN.
                                                                                                                                                                           OSXE26;
01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
HYPOTHETICAL 170, 8 KDA PROTEIN.
Oryza sativa (Rice).
Charyota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; illiopsida; Poales; Poaceae; Oryza.
MCBI_TaxID=4530;
SEQUENCE FROM N.A.
STRAIN-CY. NIPPONBARE;
Sasaki T., Matsumoto T., Yamamoto K.;
"Oryza sativa nipponbare(GA3) genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nature 368:32-38(1994).
EMBL: Z68299; CAA92607.1; .
INTERPRO; IPRO00619; .
INTERPRO; IPRO01478; .
PRAM: PRO055; PDZ; 1.
PROSTIE; PSS0052; GUANVLATE KINASE_2; 1.
PROSTIE; PSS0052; ALL SECONDAY CARE SEQUENCE 1034 AA; 116053 MW; 7E29646264FCD5BC CRC64;
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MEDILINE-94150718; pubMed-7906398;

Wilson R., Alnscough R., Anderson K., Baynes C., Berks M.,

Wilson R., Alnscough R., Anderson K., Copsey T., Cooper J., Coulson A

Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Coulson A.

Craxton M., Dair S., Du Z., Durbin R., Favello A., Fulton L.,

Gardner A., Green P., Hawkins T., Hiller L., Jier M., Johnston L.,

Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,

Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,

Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,

Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen

Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,

Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,

Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Caenorhabditis elegans,
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
NCBI_TaxID-6239;
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"2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
elegans.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (DEC-1995)
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513 GGLLMEDG 520
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Last annotation update)
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RESULT
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ID Q9
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RA Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris D.,
RA Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F.,
RA Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F.,
RA Badcock K., Basham D., Brown D., Chillingworth T., Connor R.,
RA Davies R., Davlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S.,
RA Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L.,
RA Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J.,
RA Rutter S., Seeger K., Skelton S., Squares S., Sqares R., Sulston J.E.,
RA Taylor K., Whitehead S., Barrell B.G.;
RT "Deciphering the biology of Mycobacterium tuberculosis from the
RT complete genome sequence.";
RT complete genome sequence.";
RM Rature 393:537-544(1998).
DR EMBL; 295557, CAB0933 l; -.
DR TUBERCULIST; Rv3595c; -.
                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 7
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Best Local S
Matches 6
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Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AP000364; BAA81778.1; ...
INTERPRO; IPR001477; ...
INTERPRO; IPR01878; ...
INTERPRO; IPR01969; ...
PFAM; PF00078; rvt; 1.
PFAM; PF00078; rvt; 1.
PFAM; PF00098; zf-CCHC; 1.
PRAM; PF00098; zf-CCHC; 1.
PRAM; PF00098; zf-CCHC; 1.
  Q9LHD1;
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01-JUL-1997 (TREMBLTel. 04, Las
01-JUN-2000 (TREMBLTel. 14, Las
01-JUN-2000 (TREMBLTel. 14, Las
HYPOTHETICAL 37.1 KDA PROTEIN.
RV3595C OR MTCY07H7B.27.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical protein. SEQUENCE 439 AA; 37143
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035 GGVLMQDG 10
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75.0%;
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87.5%;
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04, Last sequence update)
14, Last annotation updat
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Pred.
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Best Local
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01-AUG-1998 (TrEMBLTel. (
01-AUG-1998 (TrEMBLTel. (
01-NOV-1998 (TrEMBLTel. (
H11E01.3 PROTEIN.
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                                                                                                                                                                                                                                          Wilson R., Ainscough R., Anderson K., Baynes C., Berks M.,
Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Couls
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Johnson J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownk
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation updat
MULTIDRUG RESISTANCE P-GLYCOPROTEIN.
Arabidopsis thaliana (Mouse-ear Cress).
Eukaryota; Viridiplantae; Embryophyta; Tracheophy
Magnoliophyta; eudicotyledons; core eudicots; Ros
Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
MEDLINE-94150718; PubMed-7906398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Nemato
Rhabditidae; Peloderinae;
NCBI_TaxID=6239;
[1]
                                                                     STRAIN-BRISTOL
Geisel C., Wams
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Kaneko T., Kato
SEQUENCE FROM N.A.
                                                                                                                      SEQUENCE FROM N.A.
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                                              (MAY-1998)
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Wamsley
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                                              the EMBL/GenBank/DDBJ databases
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Pred. No. 2.5e-
1; Mismatches
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Last annotation update)
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EMBL/GenBank/DDBJ data
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dicots; Rosidae; eurosids II;
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RESULT 10
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Best Local Similarity 75.0%;
Matches 6; Conservative 7
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1495 GGILVDDG 1502
P97157; PRELIMINARY; PRT; 303 AA. P97157; P97157; O1-MAY-1997 (TrEMBLrel. 03, Created) O1-MAY-1997 (TrEMBLrel. 03, Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-CV. MONEYMAKER;
**Recombination between diverged clusters of the tomato Cf-9 plant disease resistance gene family.";
Proc. Natl. Acad. Sci. U.S.A. 0:0-0(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               092884 PRELIMINARY; PAT; 1342 m.
092884 (198 (TremBirel: 10, Created)
01-MAY-1999 (TremBirel: 10, Last sequence update)
01-CCT-2000 (TremBirel: 15, Last annotation update)
POLYPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-BRISTOL NZ; Waterston R.; Waterston R.; Waterston R.; Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases. EMBL, AF06722; AAC17017.1; ~. C1C0BACBC6D6FF11 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN-CY. MONEYMAKER;
MEDLINE-99125234; PubMed-9926411;
Parniske M., Wulff B.B., Bonnema G., Thomas C.M., Jones D.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     y/coppersicon esculentum (Tomato).

Bukaryota; Vildiplantae; Embryophyta; Tracheophyta; Spermatophyta;

Busaryota; Vildiplantae; Embryophyta; Tracheophyta; Spermatophyta;

Busaryota; Solanacea; Solanum.

NCBI_TaxID-408;
                                                                                                                                               1 GGLLVQDG 8
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920 GGVLVQEG 927
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Local Similarity 75.0%;
es 6; Conservative
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Pred. No. 3.3e+02;
2; Mismatches 0; Indels
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Pred. No. 3.2e+02;
1; Mismatches 1;
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DT 01-WAY
DE FIBER
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RA Pring-
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RN [2]
RN [2]
RN ESCOUN
RA PRING-
RY TEACL:
RN AINDELI
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Best Local Similarity 75.0%;
Matches 6; Conservative ]
  Query Match
                                                                                                                                                                                                                                                                                                                                                                                    SECURNCE FROM N.A.
STRAINFGM AND ME.
STRAINFGM AND ME.
ARDDLINE-97157339 WHI V.F. Wadell G.
Piber genes of adenoviruses with tropism
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STRAIN-PB176;
                                                                                                                                                                                                                                                                                                                                                        rology 227:239-244(1997).
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                                               365 AA; 40092 MW;
  80 5%, Score 33,
                                                    2F713268BD55AD80 CRC64,
  DB 14,
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SIMALNE-9010; PubMed-2576094;
MEDLINE-90158116; PubMed-2576094;
Salajakumari M.B., Thomas C.J., Halter R., Manning P.A.;
Salajakumari M.B., Thomas C.J., Halter R., Manning P.A.;
Gales for biosynthesis and assembly of CS3 pill of CFA/II
enterotexispenic Escherichia coli: novel regulation of pilus production
by bypassing an amber codon. "
Mol. Microbiol. 3:1685-1695(1989).
EMBL; X16944; CA34818.1; INTERPRO; IPROGOO15; INTERPRO; IPROGOO15; INTERPRO; OF CREATER STATEMENT OF THE CREATER STA 01.OCT-2000 (TrEMBLrel. 15, Last annotation update)
33 KDA PROTEIN.
Escherichia coli.
Bacterichia roli.
Bacterichia; proteobacteria; gamma subdivision; Enterobacteriaceae,
Escherichia.
Escherichia. Score 33; DB 2; Length 303; Pred. No. 77; 1; Mismatches 1; Indels 0; Gaps ò

SENDINGE, FROM N.A.

STRAIN-GW, AND ME;
STRAIN-GW, AND ME;
STRAIN-GW, MEI Y.-F., Wadell G.;
SUMMITTED (SEP-1996) to the EMBL/GenBank/DDBJ databases.
SUMMITTED (SEP-1996) to the EMBL/GenBank/DDBJ databases.
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064823.
01.NOV-1996 (TERMBLEEL 01, Created)
01-NOV-1996 (TERMBLEEL 01, Last sequence update)
01-NAY-2000 (TERMBLEEL 13, Last annotation update)
FIBER PROFEIN.
Human adenovirus type 37. Human adenovirus type 37. Viruses; dsDNA viruses, no RNA stage; Adenoviridae; Mastadenovirus. NCP\_TaxID-38437; EQUENCE FROM N.A. Heim A., Trijssenaar F.E.J.; ring-Akerblom P., Heim A., Trijssenaar F.E.J.; ummitted (MAR-1996) to the EMBL/GenBank/DDBJ databases the eye and the

Length 365

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RESULT
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01-NOV-1996
01-MAY-2000
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Submitted (SEP-1996) to the EMBL/GenBank/DDBJ databases.
EMBL; X94485; CAA64231.1; -
EMBL; U69130; AAB71732.1; -
HSSP; P11818; IKNB.
INTERPRO; IPR000931; -
INTERPRO; IPR000939; -
INTERPRO; IPR000978; -
                                                              Allium tuberosum.
Eukaryota; Viridiplantae;
Magnoliophyta; Liliopsida
                                                                                                      01-JUL-1997 (TrEMBLrel. 04, Created)
01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
ALLIINASE (EC 4.4.1.4) (ALLIIN LYASE) (CYSTEINE SULPHOXIDE LYASE).
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004927;
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PFAM; PF00608; adeno_flber2; 2.
PRINTS; PR00307; ADENOVSFIBRE.
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NCBI_TaxID=28278;
    SEQUENCE FROM N.A. Manabe T., Saito K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-97167539; PubMed-9007080;
Arnberg N., Mei Y.F., Wadell G.;
"Fiber genes of adenoviruses with tropism for the eye and the genital
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. Pring-Akerblom P.,
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                                                 NCBI_TaxID=4683;
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                                                                 Asparagales;
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Last sequence update)
Last annotation updat
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EMBL/GenBank/DDBJ d
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01-JUN-1998 (TREMBLIFE) 0
01-OCT-2000 (TREMBLIFE) 1
PGRS-FAMILY PROTEIN RV0872C OR MTV043.65C
   Q9RW35;
Q9RW35;
01-MAY-2000
01-MAY-2000
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053884;
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SEQUENCE
                                                                                                                                                                                                                                                               PFAM; PF00934; PE; 1.
PRODOM; PD001223; -;
SEQUENCE 606 AA; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mycobacterium tuberculosis.
Bacteria; Firmicutes; Actinobacteria;
Actinomycetales; Corynebacterineae; My
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MENDEL; 16931; Alltu;1125;16931.
INTERPRO; IPR000561; ...
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-- CATALYING ACTIVITY: AN S-ALKYL-L-CYSTEINE S-OXIDE =
-- SULFENATE + 2 AMINOCRYLATE.
--- COFACTOR: PYRIDOXAL-PHOSPHATE.
                                                                                                                                                                                                                                                                                                           TUBERCULIST; Rv0872c; -.
INTERPRO; IPR000084; -.
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RX MEDLINE=98295987; PubMed=9634230;
RA Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris E.
RA Gordon S.V., Elglmeier K., Gas S., Barry C.E. III, Tekala F.,
RA Gordock K., Basham D., Brown D., Chillingworth T., Connor R.,
RA Davles R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S.
RA Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L.,
RA Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J.,
RA Coliver S., Seeger K., Skelton S., Squares S., Sqares R., Sulston J.E.
Raylor K., Whitehead S., Barrell B.G.;
T. Deciphering the biology of Mycobacterium tuberculosis from the
Complete genome sequence.";
L. Nature 393:537-544(1998).
R. EMBL; ALO22004; CAAl1678.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
Last.sequence update)
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DB 2;
1.7e+02;
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Search completed: June 13, 2001, 14:20:37 Job time: 737 sec
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It Science 286:1571-1577(1999).

REMBL; AE001937; AAF10412.1; -.

RIGR; DR0834; -.

RETIGR; DR09325; crp; 1.

REPAM; PF00325; crp; 1.
                                                                                                                                                                                                                                                                                Query Match 78.0
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-20036896; PubMed-10567266; White O., Elsen J.A., Heidelberg J.F., Hickey E.K., Peterson J.D., White O., Elsen D.H., Gwinn M.L., Welson W.C., Richardson D.L., Dodson R.J., Haft D.H., Gwinn M.L., Welson W.C., Richardson D.L., Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby M., Shen M., Wensthevan J.J., Lam P., McDonald L., Utterback T., Zalewski C., Wakarova K.S., Aravind L., Daly M.J., Minton K.W., Fleischmann R.D., Ketchum K.A., Nelson K.E., Salzberg S., Smith H.O., Venter J.C., Fraser C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
NITROSEN REGULATOR, PUTATIVE.
BR0834.
Deinococcus radiodurans.
Bacteria; Thermus/Deinococcus group; Deinococcales; Deinococcus.
CCBI_TaxID-1299;
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121 GGIHVQDG 128
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75.0%;
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US-07-903-029-4
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Matches 6
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                                                                                                                                                                    TELEPHONE: (314)694-5402
TELEFAX: (314)694-9009
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 115 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, ve
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/07/903,029
FILING DATE: 19920623
CTASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Bennett, Dennis A.
REGISTRATION NUMBER: 34,547
REGISTRATION NUMBER: 34,547
                                                                                                                                TOPOLOGY: 11:
MOLECULE TYPE:
17-903-029-4
                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: (314)694-5402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Human Guanylin
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dennis A. Bennett, Monsanto
STREET: 800 N. Lindbergh Blvd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Wiegand, Roger APPLICANT: Currie, Mark C. APPLICANT: Fok, Kam F.
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CITY: St. Louis
STATE: Missouri
COUNTRY: USA
                 20
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                             1 GGLLVQDG 8
                 GGVTVQDG
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US-08-413-118-17
US-08-43-446-17
US-09-120-365-5
US-08-317-522A-3
US-08-751-965-3
US-08-751-965-3
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US-08-808-599A-3
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US-08-738-975-2
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US-08-728-636-2
US-08-728-636-2
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red. No. 18;
Mismatches
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                                                                                         Length 115;
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Minimum Maximum

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seq

length: 0 length: 2000000000

Total number of hits satisfying chosen parameters:

185757 seqs, 19210857 residues

Title: Perfect score:

PCT-US01-05825A-20

GGLLVQDG 8

Scoring table: Sequence:

BLOSUM62 Gapop 10.0 ,

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Run

protein 9:

protein search, using

sw model

GenCore version Copyright (c) 1993 - 2000

1 4.5 Compugen

June 13, 2001, 14:16:37; Search time 118.55 Seconds (without alignments) 1.296 Million cell updates/sec

Database

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 s

summaries

Result

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Issued\_Patents\_AA:\*

1: /cgn2\_6/ptodata/2/1aa/5A\_COMB.pep:\*

2: /cgn2\_6/ptodata/2/1aa/5B\_COMB.pep:\*

3: /cgn2\_6/ptodata/2/1aa/6A\_COMB.pep:\*

4: /cgn2\_6/ptodata/2/1aa/6B\_COMB.pep:\*

5: /cgn2\_6/ptodata/2/1aa/FCTUS\_COMB.pep:\*

6: /cgn2\_6/ptodata/2/1aa/Dackfiles1.pep:\*

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Score

Query

Length

В

Description

US-07-903-029-4
US-07-903-029-5
US-08-747-169-3
US-08-859-931A-4
US-08-851-974-4
US-08-851-372-4
US-09-006-632-4
US-09-006-632-4
US-09-006-632-4
US-09-006-632-10
US-08-745-809A-108
US-08-745-809A-108
US-08-749-699-95
US-08-749-699-95
US-08-749-699-92
US-08-749-699-92
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US-08-749-699-92
US-09-004-731-2
US-09-004-731-3
US-08-749-699-2
US-09-741-327E-11

US-07-903-029-5

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JS-08-774-169-3
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Patent No. 5756332
                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                     GENERAL INFORMATION:
COMPUTER: IBM Compatible OPERATING SYSTEM: DOS SOFTWARE: PastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (314)694-900:
                                                                                                                                                                                          NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                          STREET: 3174 Por
CITY: Palo Alto
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Bennett, Dennis A.
REGISTRATION UNMBER: 34,547
REFERENCE/DOCKET NUMBER: 07-
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                            1 GGLLVQDG 8
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20 GGVTVQDG 27
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOTTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                            PPLICANT: Hillman, Jennifer L.
ITLE OF INVENTION: A NOVEL GUANOSINE MONOPHOSPHATE REDUCTASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Dennis A. Bennett, Monsanto Co., A3SG
STREET: 800 N. Lindbergh Blvd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Wiegand, Roger C.
APPLICANT: Currie, Mark C.
APPLICANT: Fok, Kam F.
TITLE OF INVENTION: Human Gu
                                                                                               COUNTRY: USA
ZIP: 94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                            ADDRESSEE:
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STREET:
STRY: St. 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE:
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CLASSIFICATION: 530
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AMINO ACID
                                                                                                                                                        E: Incyte Pharmaceuticals, Inc. 3174 Porter Drive
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TD NO: 5:
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Pred. No. 18;
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; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: GenBank
; CLONE: 473772
US-08-774-169-3
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Best Local Similarity
"atches 5; Conservations
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TELEFAX: (202) 293-7860
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
                                                               ATTORNEY/AGENT INFORMATION:

NAME: KIT, GORDON
REGISTRATION NUMBER: 30,764
REFERENCE/DOCKET NUMBER: A-69
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 293-7060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 346 amino acids
TYPE: amino acid
                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC COMPACTION
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/859,931A
FILING DATE: 21 MAY 1997
CLASSIFICATION: 514
CLASSIFICATION: 514
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NAME: Billings, Lucy J.

REGISTRATION NUMBER: 36,749

REFERENCE/DOCKET NUMBER: PF-0

TELECOMMUNICATION INFORMATION:

TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: TITLE OF INVENTION:
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213 GGMIVSDG
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                                                                                                                                                                                                                                                                                                                                                                      STREET: 2100 Penns
CITY: Washington,
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5. 5945510
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62.5%;
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Pred. No.
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RESULT 6
US-09-213-390-4
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US-08-859-931A-4
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Best Local Similarity
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US-08-851-974-4
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/8:
FILING DATE: Filed Herewith
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 247 amino acids
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Hillman, Jennifer L.
APPLICANT: Corley, Neil C.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: HUMAN SERINE PROTEASE PRECURSOR
                                                                                                                                                                                                                                        TOPOLOGY: line
IMMEDIATE SOURCE:
                                                                       1 GGLLVQD 7
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50 GGFLIQD 56
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les 5; Conserv
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8 GGVLVQPG 15
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                                                                                                                               Conservative
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IBM Compatible
                                                                                                                                                                                                                                                       linear
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75.0%;
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71.4%;
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Pred. No.
                                                                                                                                           Score 30; DB 2;
Pred. No. 1.4e+02;
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US-09-213-390-4
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Best Local S
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COMPUTER READABLE FORM:
                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                             APPLICANT:
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LIBRARY: GenBar
CLONE: 306682
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LENGTH: 247 amino acids
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: FastSEQ for Windows Version CURRENT APPLICATION DATA:
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ADDRESSEE: Incyte Pharmaceuticals, Inc.
                                                                                                                              TITLE OF INVENTION: TRANSGENIC PLANTS CONTAINING MULTIPLE TITLE OF INVENTION: DISEASE RESISTANCE GENES
                                                                                                               NUMBER OF SEQUENCES:
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                           COUNTRY:
                                            STATE:
                                                                     STREET:
                                                                                                                                                                                                                                                                                                                           50 GGFLIQD 56
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REGISTRATION NUMBER:
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STATE: CA
                                                      CITY: Los Angeles
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5; Conserv
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                                                                    E: Pretty, Schroeder, Brueggemann & Clark
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                           U.S.A.
                                                                                                                                                          Maher, Eileen A.
Dixon, Richard A.
                                                                                                                                                                                     Lamb, Chr
Zhu, Qun
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                                                                                                                                                                                                                                                                                                                                                                                                   71.48;
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Pred. No. 1.4e+02
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Query Match
Best Local Similarity
Watches 5; Conserve
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                                                                   TELEX: 66141 PENNIE
NFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
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TELEPAX: 619-546-9392
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENERAL INFORMATION:
                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Baldwin, Geraldine F.
REGISTRATION NUMBER: 31,232
REFERENCE/DOCKET NUMBER: 7809-019
TYPE: amino ac
STRANDEDNESS:
TOPOLOGY: lin
                                                                                                                                                                                                                                                                                          SOFTWARE: FastSEQ Version 2.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                      TELEPHONE: (212) 790-9090
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ITLE OF INVENTION: ARABIDOPSIS THALIANA ENDO-1,4-BETA-
TITLE OF INVENTION: GLUCANASE GENE, PROMOTER AND PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    234 GVMVQDG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: New York
STATE: NY
                                                                                                                        TELEFAX:
                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                               COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 10036-2711
                                                    ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Reiter, Stephen E.
REGISTRATION NUMBER: 31,192
REFERENCE/DOCKET NUMBER: P41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/093,372 FILING DATE: 16-JUL-1993 CLASSIFICATION: 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 GLLVQDG 8
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                                     amino acid
                                                 492 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                             E: Pennie & Edmonds LLP
1155 Avenue of the Americas
                                                                                                                      (212) 869-8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 368 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shoseyov,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                            IBM Compatible
SYSTEM: DOS
       linear
                 single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   i, Ziv
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71.4%;
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Pred. No. 2.1e+02;
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                Sequence 10, Application US/08482677 Patent No. 6017714 GENERAL INFORMATION:
                                                                                                                                                                                                        Query Match
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                   TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 492 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
    APPLICANT:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                           STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                    1 GGLLVQDG 8
||||:|
328 GGLLVKTG 335
                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Baldwin, Geraldine F.
REGISTRATION NUMBER: 31,232
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Shpigel, Etai
TITLE OF INVENTION: TRANSGENIC PLANTS OF ALTERED
MORPHOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 328 GGLLVKTG 335
                                                                                                                                                                             Local Similarity
les 6; Conserv
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nes 6; Conserv
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                                                                                                                                                                                                                                                                                                         amino acid
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1155 Avenue of the Americas
Tessier-Lavigne, Marc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
                                                                                                                                                                             Conservative
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75.0%;
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75.0%;
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Pred. No. 2.9e+02;
1; Mismatches 1
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                                                                                                                                                                                         9e+02;
                                                                                                                                                                                                    Length 492;
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APPLICANT:
APPLICANT:
APPLICANT:

APPLICANT: Dodd, Jar TITLE OF INVENTION: NUMBER OF SEQUENCES:

Jessel, Thomas

Jane

Netrins

Kennedy, Timothy Placzek, Marysia Serafini,

Tito

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; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-482-677-10
                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
US-08-545-809A-108
                                                                                                                                                                                                                                                                                                                                                                               Sequence 108, Application US/08545809A Patent No. 6096878
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                    GENERAL INFORMATION:

APPLICANT: HONJO, TABUKU
APPLICANT: MATSUKU
APPLICANT: MATSUKU
ATTILE OF INVENTION: HUMAN IMMUNOGLOBULIN VH GENE
TITLE OF INVENTION: SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
NUMBER OF SEQUENCES: 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (415) 343-4342
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
               COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows95
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                 COUNTRY: US
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson, P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: UC
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 343-4341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/06 FILING DATE: 07-JUN-1995 CLASSIFICATION: 536 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              188 GGLLAFSVQDG 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: SCIENCE & TECHNOLOGY LAW GROUP STREET: 268 BUSH STREET, SUITE 3200 CITY: SAN FRANCISCO
                                                                                                                                                                      CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: OSMAN, RICHARD A REGISTRATION NUMBER: 36,627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GGLL---VQDG 8
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72.7%;
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US/08/545,809A
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Pred. No. 4.
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4.2e+02;
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RESULT 12
US-08-428-197-38
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Best Local Similarity
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                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US
APPLICATION NUMBER: PCT/US
FILING DATE: 29-OCT-1993
ATTORNEY/AGENT INFORMATION:
NAME: HOWELLS, SLACY L.
NAME: HOWELLS, SLACY L.
14.84
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TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                  TELEFAX: (619) 455-511
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                              REGISTRATION NUMBER: 34,842
REFERENCE/DOCKET NUMBER: FD
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 455-5100
                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 617-542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 27-MAR-PRIOR APPLICATION DATA:
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ANDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East - Suite 500
CITY: Los Angeles
STATE: California
                          TYPE: amino acid
                                                                                                                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             || ||| |
27 GGALVQPG 34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Freeman, John W. REGISTRATION NUMBER: 2
                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
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                                                   123 amino acids
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VENTION: METHOD FOR STIMULATING PRODUCTION OF

VENTION: VARIABLE REGION GENE FAMILY RESTRICTED ANTIBODIES THROUGH

VENTION: VACCINATION WITH A B-CELL SUPERANTIGEN AND CONJUGATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                          (619)
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                                                                                                                                                              FD-2630
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Pred. No. 1e+02;
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Best Local Similarity
Matches 6; Conserve
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                                                                                Patent No. 6177258 GENERAL INFORMATION:
                                                                                                 Sequence 95, Application US/09004731 Patent No. 6177258
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                                                                                                                                                                                                                                                                                                                                          T-US93-10555-38
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GENERAL INFORMATION
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Best Local
                                   APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (619) 455-5110
NFORMATION FOR SEQ ID NO: 38:
SEQUENCE CHARACTERISTICS:
LENGTH: 123 amino acids
TYPE: amino acid
      TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: HOWELLS, STACY L.
REGISTRATION NUMBER: 34,82
REFERENCE/DOCKET NUMBER: FD-
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: SILVERMAN
TITLE OF INVENTION:
UNBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 29-OC CLASSIFICATION:
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                              Wu Hunter, Shirley
Stiegler, Gary
Gaines, Patrick J.
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1880 Century Park East - Suite 500
                                                                                                                                                                                                                                                             Conservative
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FLEA PROTEASE PROTEINS, NUCLEIC ACID MOLECULES AND USES THEREOF
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75.0%;
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Pred. No. 1e+02;
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Pred. No. 1e+02;
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                                                                                                                                                                                                                                                                                                                                                                                Sequence 95 Patent No.
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Best Local Similarity
Matches 6; Conserv
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NAME: Connell, Gary J.
REGISTRATION NUMBER: 32,020
REFERENCE/DOCKET NUMBER: 2618
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 863-9700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (303) 863-0223 INFORMATION FOR SEQ ID NO:
                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
COMPUTER: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
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APPLICANT:
APPLICANT:
                                                          SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
ATTORNEY/AGENT INFORMATION
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APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 220 amino acid:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                CLASSIFICATION: 424
                               APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                      CITY: Denver
STATE: Colorado
                                                                                                                                                                        COUNTRY:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGLLVQDG 8
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5. 6210920
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1700 Lincoln Street, Suite 3500
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Stiegler, Gary
Gaines, Patrick J.
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75.08;
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Pred. No. 1
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(.9e+02;
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

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Title:
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No.
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1: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*

2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*

3: /SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*

4: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*

5: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*

6: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

7: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

8: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

9: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

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   Y79125
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W88318
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B42204
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Human Zneul EGF-li
Human Zneul partia
Human ORFX ORF1482
Human ORFX ORF1402
Human Zneul partia
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Human normal uteru
Human TANGO 125b (
Human neuro-growth
Human ORFX ORF1968
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Human Zneul EGF-li
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273 273 273 273 273 273 273 273 273 273	273 273 273 273 273 273 273
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## ALIGNMENTS

RESULT Y79125

Y79125;

Y79125 standard; Peptide;

8 AA

Peptide antagonist of zonulin. 05-JUN-2000 (first entry)

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Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatcological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                  WPI; 2000-205565/18
                                                                               03-AUG-1998;
                                                                                                 28-JUL-1999;
                                                                                                                    17-FEB-2000.
                                                                                                                                        WO200007609-A1.
                                                                                                                                                           Synthetic.
                                                          (UYMA-) UNIV MARYLAND BALTIMORE
                                                                               98US-0127815
                                                                                                 99WO-US16683
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New peptide antagonist of zonulin useful as antiinflammatory agent for

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RESULT
W88384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chinding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammattory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiactasia, correction of congenital heart disease with Fontan's operation, correction of congenital heart disease with Fontan's operation, mucosal diseases estimout ulceration, e.g. Menetrier's disease, collagenous disease, eosinophilic gastroenteritis, and immune diseases, eq. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 47; 69pp;
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antibody; epidermal growth factor; EGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-APR-1999
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                                                                                                                                                                                              18-JUN-1997;
18-JUN-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09857983-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zneu-1; neuro-growth factor-like protein; human; breast cancer;
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human Zneul EGF-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W88384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W88384 standard; Peptide; 31
                                                                                            (ZYMO ) ZYMOGENETICS
                                                                                                                                                                                                                                                                                                                                                                 18-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GGGCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
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8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA;
Jelinek LJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          æ
                                                                                                                                                                                                    97US-0878322.
97US-0050143.
                                                                                                                                                                                                                                                                                                                                                                 98WO-US12763
                                                                                                       INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               domain 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English
     Lehner JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              meningitis, encephalomyelitis
Sheppard PO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This peptide comprises the first epidermal growth factor-like domain (EGF-1), i.e. amino acid residues 105-135, of human Zneul (see W88381), a new neuro-growth factor-like protein. Zneul can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. It may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul may also be used to treat Alzheimer's disease, cancer, to repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to including specific domains of Zneul and epitope-bearing portions of Zneul, can be used to raise specific antibodies for use e.g. in
                                                                                    Blumberg
Whitmore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New mammalian Zneul polypeptides - used to, e.g. treat Alzheimer's disease, cancer and to repopulate blood cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 6; Page 53; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-095324/08
 Claim 6; Page 57; 70pp; English
                        New mammalian Zneul disease, cancer and
                                                                                                                                                                                                              23-DEC-1998
                                                                                                                                                                                                                                                                                                   Zneu-1; neuro-growth factor-like protein; human; breast cancer;
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
nerve regeneration; haematopoiesis; fertility; contraception;
                                                                                                                                                                                                                                                                                                                                                      Human Zneul
                                                                                                                                                                                                                                                                                                                                                                              26-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                      W88389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zneul, can be used diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Whitmore TE;
                                                             WPI; 1999-095324/08
                                                                                                                         (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                  18-JUN-1997;
18-JUN-1997;
                                                                                                                                                                                       18-JUN-1998;
                                                                                                                                                                                                                                       WO9857983-A2
                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                              W88389 standard; Protein; 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 ggscvqpg 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GGGCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity 7; Conserv
                                                                                    TE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31 AA;
                                                                                                                                                                                                                                                                                                                                                      partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                  Jelinek LJ,
                                                                                                                                                  97US-0878322
97US-0050143
                                                                                                                                                                                        98WO-US12763
                        polypeptides
to repopulate
                                                                                                                                                                                                                                                                                                                                                      polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87.8%;
87.5%;
                    repopulate blood
                                                                                                   Lehner JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                              Å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 43; I
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                   Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
3.5;
                           to, e.g. treat Alzheimer's cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This claimed polypeptide comprises amino acid residues 105-177 of C the human Zneul mature protein (see M88382), i.e. the 2 epidermal growth factor-like domains (see also W88384-85) of Zneul is a new neuro-growth factor-like protein that can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. Zneul may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul can be used to treat Alzehmer's disease, cancer, to repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), including specific domains of Zneul and epitope-bearing portions of Zneul, can be used to raise specific antibodies for use e.g. in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 7
                                                                                                                         31-MAR-1999;
02-APR-1999;
05-APR-1999;
30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                             hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifungal; antifungal; antitheumatic; antithyroid; antithanaemic; gene therapy; cancer; proliferative disorder; hypertension neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS; cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation; thromboglob; cartilage damage; antiinflammatory disease; coagulation;
WPI; 2000-602362/57
N-PSDB; C75927.
                                                     Shimkets
                                                                                                                                                                                                                                                           05-OCT-2000
                                                                                                                                                                                                                                                                                             WO200058473-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant; immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B41718 standard; Protein; 115 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human ORFX ORF1482 polypeptide sequence SEQ ID NO: 2964.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                      31-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnostic assays.
                                                                                         (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11 |||||
10 ggscvqpg 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GGGCVQPG 8
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                                                     RΑ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73
                                                                                                                                                                                                                                                                                                                                                                 contraceptive.
                                                                                                                                                                                                                      2000WO-US08621.
                                                                                                                           99US-0127728
2000US-0540763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                     Leach M;
                                                                                                                                                               99US-0127607.
99US-0127636.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 43; DB 2
Pred. No. 7.4;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hypertension;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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Query Match
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Matches 7
                                                                                                                                                                                                                                       dermatological; immunosuppressive; antiinflammatory; antibacterial; antifurgal; antifungal; antirheumatic; antifutyroid; and antianaemic. The sequences can be used for determining the presence of or predisposition to, or preventing or treating pathological conditions associated with an ORFX-associated disorder. The nucleic acids can be used to express ORFX proteins in gene therapy vectors. The proteins and nucleic acids may be used to treat cancers, proliferative disorders, neurodegenerative disorders, osteoarthritis, graft vs host disease, cardiovascular disease, cardiovascular disease, cardiovascular disease, systemic lupus erythematosus, severe combined immunodeficiency (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune disorders, asthma, allergies, applastic annæmia, burns, wounds, bone and cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; to enhance coagulation; to inhibit thrombosis; and as a contraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        represent the human ORFX open reading frames 1 to 3161. The ORFX sequences have activities such as: cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; osteopathic; anticonvulsant; antiarthritic; immunosuppressant; immunostimulant; cardiant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C74446 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel nucleic acids and peptides derived from open reading useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease -
                                                                                                                                                                                Sequence
   Similarity 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C77606 encode the proteins given in B40237 to B43397, which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page
                                                                                                                                                                                115
       Conservative
                                                                                                                                                                                ΑA;
                                 87.8%;
Score 43; DB Pred. No. 11; 0; Mismatches
       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              English.
                                                                         21;
       1;
                                                                     Length 115;
       Indels
       0
       Gaps
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antianaemic; gene therapy; cancer; proliferative disorder; hypertension; neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS; cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiparkint; immunosuppressant; cardiant immunosufmulant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antiinflammatory; hypotensive; dermatological; immunosuppressive; antiinflammatory; antivaral; antibacterial; antifungal; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human ORFX ORF1402 polypeptide sequence SEQ ID NO:2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-FEB-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26
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Homo

thrombosis;

contraceptive.

31-MAR-2000; 2000WO-US08621

RESULT B41638 ID B

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RESULT
W88388
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     18-JUN-1998;
                                                                                                                     Zneu-1; neuro-growth factor-like protein; human; breast cancer;
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
nerve regeneration; haematopoiesis; fertility; contraception;
                                                             W09857983-A2
                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                     W88388 standard; Protein; 158
                                                                                                                                                                                                                                     26-APR-1999
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                                                                                                                                                                                                                                                                                                                                                                              91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 11; Page 2044; 5507pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel nucleic acids and peptides derived from open reading frame X, useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                       1 GGGCVQPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CURA-) CURAGEN CORP.
                                                                                                                                                                                           Zneul partial polypeptide.
                                                                                                                                                                                                                                                                                                                                                                         ggscvqpg 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-602362/57.
DB; C75847.
                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 87.5
7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           153 AA;
                                                                                                                                                                                                                            (first entry)
98WO-US12763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; 99US-0127607.
; 99US-0127636.
; 99US-0127728.
; 2000US-0540763.
                                                                                                                                                                                                                                                                                                                                                                                                                                             87.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                        Score 43; DB;
Pred. No. 14;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      21;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 153;
                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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RESULT
W88390
ID W88390
XX W88390
XX W88390
XX W892
XX 20
XX Z0
XX Z0
XX H0
XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This claimed polypeptide comprises amino acid residues 1-158 of the 20 human Zneul mature protein (see W88382), i.e. the first HSMRC3WFA concluding domain and first EGF-like domain of Zneul. Zneul. is Zneul. and Euro-growth factor-like protein that can be used as a growth, and intenance, or differentiation factor in the Spinal cord, heart, cord in breast cancer, glioblastoms, and pituitary adenomas. Zneul may also play a cord can be used to treat Alzheimer's disease, cancer, to made in the placenta, in fertility and contraception, or to concluding specific domains of Zneul and epitope-bearing portions of concluding specific domains of Zneul and epitope-bearing portions of concluding specific domains of Zneul and epitope-bearing portions of concluding specific domains of Zneul and epitope-bearing portions of concluding specific domains of Zneul and epitope-bearing portions of concluding specific domains of Zneul and epitope-bearing portions of concluding specific assays.
                                                                                                                        18-JUN-1997;
18-JUN-1997;
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Best Local
                      Blumberg H,
                                                          (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                      23-DEC-1998
                                                                                                                                                                                                   18-JUN-1998;
                                                                                                                                                                                                                                                                                                        W09857983-A2
                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                             Zheu-1; neuro-growth factor-like protein; human; breast cancer; glioblastoma; pituitary adenoma; Alzheimer's disease; therapy; nerve regeneration; haematopoiesis; fertility; contraception; antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human Zneul partial polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W88390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W88390 standard; Protein; 169 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 87.1 res 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 6; Page 56; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New mammalian Zneul polypeptides – used disease, cancer and to repopulate blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-095324/08
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18-JUN-1997;
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           Jelinek LJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    158 AA;
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                                                                                                               97US-0878322.
97US-0050143.
                                                                                                                                                                                        98WO-US12763
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97US-0050143.
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     Lehner JM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 43; DB
Pred. No. 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
Sheppard
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            to, e.g. treat Alzheimer's cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
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RESULT
Y59870
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This claimed polypeptide comprises amino acid residues 105-273 of CC the human Zneul mature protein (see #88382), i.e. the 2 epidermal CC growth factor-like domains (see also #88384), i.e. the 2 epidermal CC growth factor-like domain of Zneul Zneul is a new neuro-growth CC factor-like protein that can be used as a growth, maintenance, or CC differentiation factor in the spinal cord, heart, spleen, testis, CC thyroid and lymph nodes. Zneul may also play a role in breast CC cancer, gliobiastomas, and pituitary adenomas. Zneul can be used to treat Alzheimer's disease, cancer, to repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, CC fertility and contraception, or to regenerate nerves. Claimed CC Zneul polypeptides (see also #88382-97), including specific domains CC facul and epitope-bearing portions of Zneul, can be used to raise specific antibodies for use e.g. in diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 7
                       Claim
                                                               New nucleic acid sequences expressed in normal derived polypeptides, for treatment of uterine identification of therapeutic agents
                                                                                                                                                                           N-PSDB;
                                                                                                                                                                                                                                                                                                                                                    17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DE19817946-A1
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                                                                                                                                                                         WPI; 1999-591956/51.
N-PSDB; Z41336.
                                                                                                                                                                                                                                                   Rosenthal A,
                                                                                                                                                                                                                                                                                                                                                                                                         17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-OCT-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; uterus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ¥59870;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New mammalian Zneul disease, cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-095324/08
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                  23; Page 134; 154pp; German
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  169 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17
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                                                                                                                                                                                                                                                                                                                                                       98DE-1017946
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer;
                                                                                                                                                                                                                                                                                                     GES GENOMFORSCHUNG
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87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  treatment;
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                                                                                                                                                                                                                                                     Hinzmann B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 43; DB Pred. No. 15; 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  anticancer; cytostatic;
                                                                                                                                                                                                                                                                                                     MBH.
                                                                                                                                                                                                                                                   Schmitt
                                                                                               normal uterine tissues, uterine cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             to, e.g. treat Alzheimer's cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20;
                                                                                                                                                                                                                                                   ۶,
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                                                                                                                                                                                                                                                   Pilarsky
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                                                                                                                                                                                                                                                   Dahl
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RESULT
Y52139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Y52138-Y52140 are amino acid sequences of spliced variants of TANGO 125 (T125). The T125 protein (Y52137) has two epidermal growth factor (EGF)-like domains at amino acids 107-134 and 141-176 and is predicted to have a molecular weight of approximately 30kD. T125 is predicted to have no transmembrane domains and appears to be a secreted protein. The sequences of all variants of T125 are used in the invention to create antibodies which selectively bind to T125. The T125 polypeptide is used
                                                                                                                                                         Novel polynucleotides cellular processes -
                                                                                                                                                                                                      WPI; 2000-013240/01.
N-PSDB; Z37133.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               secreted protein; agonist; antagonist; predictive medicine; treatment; forensic biology.
                                                                                                                                                                                                                                                                                                                 23-APR-1998;
23-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-FEB-2000
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                                                                                                                            Example 4; Fig
                                                                                                                                                                                                                                                     Holtzman DA
                                                                                                                                                                                                                                                                                  (MILL-)
                                                                                                                                                                                                                                                                                                                                                              23-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                             28-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                          WO9954437-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human TANGO 125b (T125b) amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y52139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Y52139 standard;
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nes 7; Conser
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                                                                                                                                                                                                                                                                                    MILLENNIUM BIOTHERAPEUTICS
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                                                                                                                            6; 120pp; English
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99US-0065363
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein;
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87.5%;
                                                                                                                                                                       and polypeptides used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             247
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Pred.
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                                                                                                                                                                       modulate a variety
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This polypeptide comprises human Zneul mature polypeptide. is a new neuro-growth factor-like protein (see also W88381).
                                                                                                                                                                               Blumberg
Whitmore
                                                                                                  disease,
                                                                    Claim 6;
                                                                                             New mammalian Zneul
disease, cancer and
                                                                                                                                           WPI; 1999-095324/08
                                                                                                                                                                                                                     (ZYMO ) ZYMOGENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                          18-JUN-1997;
18-JUN-1997;
                                                                                                                                                                                                                                                                                                                                    23-DEC-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                        18-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Doma ir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zneu-1; neuro-growth factor-like protein; human; breast cancer;
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
nerve regeneration; haematopolesis; fertility; contraception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human neuro-growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-APR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W88382 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       to modulate a variety of cellular processes. It can be used to produce fusion proteins. The protein may also be used to produce antibodies, and identify 7125 antagonists and agonists. The 7125 polynuclectides, predictive medicine; and methods of treatment of 7125 associated disorders. The 7125 polynuclectides can be used in screening assays; to detect 7125 mRNA; to detect genetic alterations in the 7125 gene; in forensic biology; and as a source of primers and probes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GGGCVQPG 8
                                                                                                                                                                               TE;
                                                        Page 48-49; 70pp; English.
                                                                                                                                                                                        Jelinek LJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   247 AA;
                                                                                                                                                                                                                                                    97US-0878322.
97US-0050143.
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                                                                                                                                                                                                                                                                                                 98WO-US12763.
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159..254
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                                                                                                                                                                                                                                                                                                                                                                                                                note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "hydrophilic domain (HSM1), homologous
an HSMHÇ3W5A domain "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                    polypeptides - used
to repopulate blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein; 254 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               factor-like protein Zneul mature polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ___epidermal growth factor-like
                                                                                                                                                                                                                                                                                                                                                                                                                             __epidermal growth factor-like domain 2"
                                                                                                                                                                                                                                                                                                                                                                                    "domain HSM2 homologous to an HSMHC3W5&domain"
                                                                                                                                                                                     Lehner лм,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 43; DB
Pred. No. 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                              Sheppard PO;
                                                                               to, e.g. treat Alzheimer'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21; Length 247;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             domain 1"
Zneul
. Its
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CCCXX SYN PR XX PR

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AC
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CONTROL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
B42204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CC closest human homologue is HSMHC3W5A, a gene in the HIA class III CC Zneul is also homologues to Notch 4. Its EGF-like domains and may CC adult tissues, with high expression in heart, placenta, spleen, CC estis, thyroid, spinal cord and lymph node. Zneul can be used as CC ord, heart, spleen, testis, thyroid, spinal cord and lymph node. Zneul can be used as CC cord, heart, spleen, testis, thyroid and lymph nodes. It may CC concer, to repopulate blood cells after chemotherapy, to stimulate CC glay a role in breast cancer, glioblastomas, and pituitary CC cancer, to repopulate blood cells after chemotherapy, to stimulate CC myofibroblast proliferation, stimulate or inhibit growth factors CC regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), CC Zneul, can be used to raise specific antibodies for use e.g. in CC Including specific domains of Zneul and epitope-bearing portions of CC Zneul, can be used to raise specific antibodies for use e.g. in
                                                                                                                                                                                                   31-MAR-1999;
02-APR-1999;
05-APR-1999;
                                                                                                                                                          31-MAR-1999; 99US-0127607.
02-APR-1999; 99US-0127636.
05-APR-1999; 99US-0127728.
30-MAR-2000; 2000US-0540763.
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                                                                                                    (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                           31-MAR-2000; 2000WO-US08621.
                                                                                                                                                                                                                                                                                                                                                                                     05-OCT-2000.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human ORFX ORF1968 polypeptide sequence SEQ ID NO:3936.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B42204 standard; Protein; 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95 ggscvqpg 102
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hes
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                                                  RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 7; Conserv
                                        Leach M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           254 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 43;
.Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
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WPI; 2000-602362/57

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CC C74446 to C77606 encode the proteins given in B40237 to B43397, which CC represent the human ORFX open reading frames 1 to 3161. The ORFX CC sequences have activities such as: cytostatic; hepatotropic; vulnerary; CC antipsoriatic; antiparkinsonian; mootropic; neuroprotective; osteopathic; CC anticonvulsant; antiparkinsonian; immunosuppressant; immunostimulant; CC cardiant; thrombolytic; coaquiant; vasotropic; antibacterial; CC cardiant; thrombolytic; coaquiant; vasotropic; antibacterial; CC antiviral; antifungal; antirheumatic; antihiproid; and antibacterial; CC antiviral; antifungal; antirheumatic; antihiproid; and antianaemic. The CC sequences can be used for determining the presence of or predisposition CC to, or preventing or treating pathological conditions associated with an CC ORFX-associated disorder. The nucleic acids can be used to express ORFX CC proteins in gene therapy vectors. The proteins and nucleic acids may be CC disorders, osteoarthritis, graft vs host disease, cardiovascular disease, CC diabetes mellitus, hypertension, hypothyroidism, cholesterol ester CC storage, systemic lupus erythematosus, severe combined immunodeficiency CC (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune CC disorders, asthma, allergies, aplastic anaemia, burns, wounds, bone and CC cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; to chance coagulation; to inhibit thrombosis; and as a contraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
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Best Local Similarity
Matches 7; Conserv
    10-MAR-1998
11-MAR-1998
11-MAR-1998
11-MAR-1998
11-MAR-1998
12-MAR-1998
17-MAR-1998
20-MAR-1998
20-MAR-1998
                                                                                                                                                                                                                                                                                                  Human;
probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GGGCVQPG 8
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114 ggscvqpg 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel nucleic acids and peptides derived from open reading useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease -
                                                                                                                                                                   08-MAR-1999;
                                                                                                                                                                                                16-SEP-1999
                                                                                                                                                                                                                          W09946281-A2
                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                   secreted protein;
                                                                                                                                                                                                                                                                                                                                          Human PRO213-1 protein sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 11;
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                                                                                                                                                                                                                                                                                                 PRO; EST; expressed sequence tag; PCR primer; hybridisation; blood coagulation disorder; cancer; cellular adhesion disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 3102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          265 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                         (first entry)
 98US-0077450.
98US-0077641.
98US-0077641.
98US-0077749.
98US-0078004.
98US-0078004.
98US-00780866.
98US-00789310.
98US-0078936.
                                                                                                                                                                   99WO-US05028
                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein;
                                                                                                                                                                                                                                                                                   transmembrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87.8%;
87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 43; DB Pred. No. 22; 0; Mismatches
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      20-MAR-1998
26-MAR-1998
27-MAR-1998
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30-MAR-1998
31-MAR-1998
31-APR-1998
31-APR
 98US-0084414

98US-0084411

98US-0084639

98US-0084637

98US-0084637

98US-0084640

98US-0084640

98US-0085523

98US-0085523

98US-008558

98US-008558

98US-0085597

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98US-00858
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98US-0082704.
98US-0082704.
98US-0082796.
98US-0083336.
98US-0083322.
98US-0083496.
98US-0083495.
98US-0083554.
98US-00835545.
98US-00835545.
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98US-0081195.
98US-0081293.
98US-0081293.
98US-0081229.
98US-0081838.
98US-0081838.
98US-00818955.
98US-0082568.
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98US-0081049
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98US-0080333
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RESULT

Y41770

ID 170

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Best Local S
Matches 7
                                                    10-MAR-1998
11-MAR-1998
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12-MAR-1998
13-MAR-1998
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20-MAR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                    Human; PRO; EST; expressed sequence tag; PCR primer; hybridisation; probe; blood coagulation disorder; cancer; cellular adhesion disorder; secreted protein; transmembrane protein.
                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human PRO1330 protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention describes secreted and transmembrane polypeptides and their polypucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. 233891 to sequence given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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114 ggscvqpg 121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-MAY-1998;
28-MAY-1998;
28-MAY-1998;
30-JUL-1998;
11-SEP-1998;
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ful for treating blood coagulation disorders,
esion disorders -
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DB; Z34311.
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98US-0077632

98US-0077641

98US-0077649

98US-0077791

98US-0078004

98US-0040220

98US-0078886

98US-0078810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                   99WO-US05028
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98US-0087106.
98US-0087208.
98US-0094651.
98US-0100038.
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87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      their polynucleotides, cancers and cellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ζ'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                   13-MAY 1998
13-MAY 1998
13-MAY 1998
15-MAY 1998
                                                                                                                                                                                                                                                                                                            31-MAR. 1998

31-MAR. 1998

31-MAR. 1998

31-MAR. 1998

01-APR. 1998

01-APR. 1998

01-APR. 1998

08-APR. 1998

08-APR. 1998

09-APR. 1998

09-APR. 1998

15-APR. 1998

15-APR. 1998

15-APR. 1998

21-APR. 1998

22-APR. 1998

22-APR. 1998

22-APR. 1998

22-APR. 1998

23-APR. 1998

24-APR. 1998

25-APR. 1998

27-APR. 1998

29-APR. 1998

29
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98US-0078936.
98US-007936.
98US-007963.
98US-007963.
98US-007963.
98US-007968.
98US-007968.
98US-007968.
98US-007972.
98US-0080105.
98US-0080105.
98US-008016.
98US-008016.
98US-0080177.
98US-0080177.
98US-0080177.
98US-0080177.
98US-0081195.
98US-008181.7
98US-008181.7
98US-008181.7
98US-008181.7
98US-008183.8
98US-0081.9
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RESULT
Y41771
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Best Local S
Matches 7
  10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
12-MAR-1998;
13-MAR-1998;
17-MAR-1998;
20-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-MAY-1998;
28-MAY-1998;
28-MAY-1998;
28-MAY-1998;
30-JUL-1998;
11-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes secreted and transmembrane polypeptides and their polynucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. 233891 to 234338, and Y41685 to Y41774 represent polynucleotide and polypeptide sequence given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                      1 GGGCVQPG 8
|| |||||
114 ggscvqpg 121
                                                                                                                                                                          Homo
                                                                                                                                                                                            Human; PRO; EST; expressed sequence tag; PCR primer; hybridisation; probe; blood coagulation disorder; cancer; cellular adhesion disord secreted protein; transmembrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New secreted and transmembrane polypeptides and their polynucleotides, useful for treating blood coagulation disorders, cancers and cellular adhesion disorders -
                                                                                                                                                                                                                                                                   07-DEC-1999
                                                                                                       08-MAR-1999;
                                                                                                                             16-SEP-1999
                                                                                                                                                    WO9946281-A2
                                                                                                                                                                                                                                                                                                               Y41771 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
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                                                                                                                                                                                                                                                                                                                                      14
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DB; Z34312.
                                                                                                                                                                        sapiens
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                                                                                                                                                                                                                                             PRO1449
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                                                                                                                                                                                                                                                                                                                                                                                                                  l Similarity
7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          273
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                                                                                                                                                                                                                                                                 (first entry)
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98US-0077450
98US-0077632
98US-0077649
98US-0077649
98US-0077791
98US-0078004
98US-0078004
98US-0078886
                                                                                                                                                                                                                                            protein sequence.
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98US-0087098.
98US-0087106.
98US-0087208.
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98US-0100038.
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                                                                                                       99WO-US05028
                                                                                                                                                                                                                                                                                                               Protein;
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87.5%;
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                                                                                                                                                                                                                                                                                                               273 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                  Score 43; DB Pred. No. 23; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                   0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J,
                                                                                                                                                                                                                                                                                                                                                                                                                            DB
23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Baker
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                                                                                                                                                                                                           disorder;
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27-MAR-1998
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30-MAR-1998
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9805-0078910
9805-0078910
9805-0079294
9805-0079564
9805-0079563
9805-0079786
9805-0080107
9805-0080107
9805-0080107
9805-0080107
9805-00801294
9805-0080288
9805-0081195
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9805-0081296
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RESULT 15
W88381
XX W88381
XX W88381
XX U88381
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                         Protein
                                                                                                                                                                                                                                                        Peptide
                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                               Zneu-1; neuro-growth factor-like protein; human; breast cancer; glioblastoma; pituitary adenoma; Alzheimer's disease; therapy; nerve regeneration; haematopoiesis; fertility; contraception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human neuro-growth factor-like protein Zneul.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-APR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes secreted and transmembrane polypeptides and their polynucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion 234338, and v41685 to v41774 represent polynucleotide and polypeptide sequence given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M88381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W88381 standard; Protein; 273 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 12; Fig 217; 530pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New secreted and transmembrane polypeptides and useful for treating blood coagulation disorders, adhesion disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-MAY-1998,
22-MAY-1998,
28-MAY-1998,
28-MAY-1998,
28-MAY-1998,
30-JUL-1998,
11-SEP-1998;
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DB; Z34313.
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7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         273 AA;
                                       105..135
/note= "epidermal growth factor-like domain 1"
136..177
                                                                                                                                                                                                       /note= "putative signal peptide' 20..273
                                                                                                                                                                                                                                                 Location/Qualifiers
1..19
                                                                                                                                    /note-
                                                                                                                                                                              /note=
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98US-0087098.
98US-0087106.
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98US-0094651.
98US-0100038.
                                                                                                                                                                                                    .273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87.8%;
87.5%;
                                                                                   "hydrophilic domain (HSM1), homologous to
an HSMHC3W5A domain "
"epidermal growth factor-like domain 2"
                                                                                                                                                                    "mature protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gurney
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yuan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and transmembrane polypeptides e sequences are useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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Search completed: Job time: 663 sec

June 13, 2001, 14:25:44

B QY

114

99scvqpg

121

1 GGGCVQPG 8

Conservative

0;

87.8%; 87.5%;

Score 43; DB Pred. No. 23; Mismatches

20; 1;

Length 273; Indels

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Gaps

0;

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Ouery Match:
Best Local Similarity
Matches 7; Conserve
                                                                                                      like protein. Its anino acid sequence was deduced from the nucleotide sequence (see v84341) of a cDNA clone isolated from a gene in cDNA library. Zneul's closest human homologue is HSMHC3WSA, which contains Notch 4. Zneul's closest human homologue is NSMHC3WSA, which contains Notch 4. Zneul is also homologues to Notch 4 in its CE closest human is contained in a cosmid CE CENTLIKE domains and may be involved in EGF receptor pathways. The placenta spleen, testis, thyroid, spinal cord and lymph ce conders and lymph ce conders and lymph nodes. It may also play a role in breast concer, CC differentiation factor in the spinal cord, heart, spleen, testis, clyroid, spinal cord and lymph ce can be used as a growth, maintenance, or concer, and pituitary adenomas. Zneul may be used to treat CC chemotherapy, to stimulate myofibroblast proliferation, stimulate CC contraception, or to regenerate nerves. Claimed Zneul and CC contraception, or to regenerate nerves. Claimed Zneul
                                                                                                  Sequence
                                                                                                              contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), including specific domains of Zneul and epitope-bearing portions of Zneul, can be used to raise specific antibodies for use e.g. in diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                         This polypeptide comprises human Zneul, a new neuro-growth factor-
like protein. Its amino acid sequence was deduced from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 6; Page 47-48; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New mammalian Zneul disease, cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-095324/08
N-PSDB; V84341.
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Whitmore TE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-JUN-1997;
18-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-1998;
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                                                                                                  273
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                                                                                               AA;
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97US-0050143.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptides - used to repopulate blood
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lehner JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sheppard PO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to, e.g.
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10,00m/ MO19 000

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Minimum |
Maximum |
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Perfect score:
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      length: 0
length: 2000000000
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Match
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
    June 13, 2001, 14:10:49; Search time 87.97 Seconds (without alignments) 6.250 Million cell updates/sec
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Copyright (c) 1993 - 2000 Comp
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## ALIGNMENTS

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C;Accession: A02841
R;Swart, L.S.; Haylett, T.
Blochem, J. 133, 641-654, 1973
A;Title: Studies on the high-sulphur proteins of reduced merino wool. Amino acid sequ A;Reference number: A90269; MUID:74022242
A;Accession: A02841
A;Molecula type: protein
A;Residues: 1-130 <SWA>
A;Experimental source: Merino wool
C;Superfamily: keratin high-sulfur matrix protein IIIA
C;Keywords: duplication; hair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ki, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N.
J. Bacteriol. 179, 7135-7155, 1997
A;Title: Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: fu A; Reference number: A69000; MUID:98037514
A; Accession: H69051
A; Status: preliminary; nucleic acid sequence not shown; translation not shown A; Status: preliminary; nucleic acid sequence not shown; translation not shown A; Residues: 1.145 < MTH>
A; Residues: 1.145 < MTH>
A; Residues: 1.145 < MTH>
A; C; Genetics: GB:AE000803; GB:AE000666; NID:g2621179; PIDN:AAB84645.1; PID:g262 A; Genetics: Strain Delta H
C; Genetics: Afgene: MTH139
                                                                                                                                                                                                                                                                                                                                                               keratin high-sulfur matrix protein IIIA3A - sheep C;Species: Ovis orientalis aries, Ovis ammon aries C;Date: 24-Apr-1984 #sequence_revision 24-Apr-1984
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R; Smith, D.R.; Douce
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, T. Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwani, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N. Bacteriol. 179, 7135-7155, 1997
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Best Local
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#text_change 16-Aug-1996
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Query Match Best Local Matches

Similarity 85. 6; Conservative

81.6%; 85.7%;

Score 40; DB 1; Pred. No. 6.3; 1; Mismatches

0;

Indels

0;

Gaps

0

Length 130;

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kcratin high-sulfur matrix protein IIIA3, major component - goat N;Alternate names: M2.6 protein C;Specites: Capra aegagrus hircus (domestic goat) C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 16-Aug-1996 protein in A02840
                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: protein
A;Molecule type: protein
A;Residues: 1-131 <JOU>
C;Comment: Wool and hair consist of microfibrils embedded in a rigid matrix of other proc;Superfamily: keratin high-sulfur matrix protein IIIA
C;Keywords: duplication; hair
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Best Local S
Matches 6
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A:Title: Studies on the high-sulphur proteins of
A:Reference number: A92978
A:Accession: B92978
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J. S. Afr. Chem
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A: Residues: 1-131 <SWA>
A: Residues: 1-131 <SWA>
A: Experimental source: Merino wool
C: Comment: Wool and hair consist of microfibrils e
C: Superfamily: keratin high-sulfur matrix protein
C: Keywords: duplication; hair
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R;Swart, L.S.; Haylett, T.
Blochem. J. 133, 641-654, 1973
A;Title: Studies on the high-sulphur proteins
A;Reference number: A90269; MUID:74022242
A;Accession: A02840
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85.7%;
250-263, 1975
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85.7%;
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1 GGGCVQPG 8

Matches Query Match Best Local

Local

Similarity

79.6%; 87.5%;

Score 39; DB; Pred. No. 3.1; 0; Mismatches

2;

Length 36;

ب • •

Indels

0;

Gaps

0;

Conservative

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J. Biol. Chem. 264, 1565-1569, 1989
A;Title: Comparison of variable region primary structures within A;Accession: D31485
A;Scatus: preliminary
A, Moloc.
A;Molecule type: protein
A;Residues: 1-36 <BED>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                             Ig heavy chain V regions (3-24 and 5-14) - mouse (fragment) C;Species: Mus musculus (house mouse) C;Date: 31-Jul-1989 #sequence_revision 31-Jul-1989 #text_change C;Accession: D31485
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Science 277, 1453-1462, 1197
A;Title: The complete genome sequence of Escherichia coli K-12.
A;Reference number: A64720; MUID:97426617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references:
A;Experimental sources
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-278 <BLAT>
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C;Species: Escherichia coli
C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 08-Oct-1999
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A:Accession: A92978
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les 6; Conserv
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source: strain K-12, substrain MG1655
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                                                                                                                                                                                      30-May-1997
                                                                                                                an anti-fluorescein
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RESULT
S36381
Ig heavy
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C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change 17-Jul-1998
C;Accession: S33402; S36385
R;Kettleborough, CA.; Saldanha, J.; Ansell, K.H.; Bendig, M.M.
Eur. J. Immunol. 23, 206-211, 1993
A;Title: Optimization of primers for cloning libraries of mouse immunoglobula, Reference number: S33391; MUID:93122092
                                                                                                                                                                                                                                                     A;Introns: 30/3
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-59 < CUR>
A; Cross-references: GB: M19706
A; Crose: the authors translated
C; Genetics:
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C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;1-38/Domain: immunoglobulin homology (fragment) <IMM>
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A; Residues: 1-30 <ANS>
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A; Reference number: $36376
A; Accession: $36385
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A; Residues: 1-38 <KET>
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Best Local
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heavy chain V region - mouse (fragment)
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7; Conser
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Pred. No. 3.3;
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A;Experimental source: strain BALB/c
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
C;Keywords: heterotetramer; immunoglobulin cIMM>
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A;Experimental source: strain BALB/c
A;Experimental source: strain BALB/c
C;Superfamily: immunoglobulin V region; immunoglobulin h
C;Keywords: heterotetramer; immunoglobulin
C;Keywords: heterotetramer; immunoglobulin
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Ig heavy chain precursor V-III region (Ab21) -
C; Species: Homo sapiens (man)
                                                                       RESULT
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C;Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
C;Accession: S36382; S33397
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R; Ansell, K.H.
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C;Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
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A; Residues: 1-33 <KET>
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A; Residues: 1-60 < ANS>
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A; Residues: 3-43 <KET>
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A; Residues: 1-59 < ANS>
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Matches 7; Conserv
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A;Molecule type: DNA
A;Residues: 1-94 <LAW>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;11-94/Domain: immunoglobulin homology <IMM>
                                                                                                                                                       R;Lawler, A.M.; Lin, P.S.; Gearhart, P.J.
Proc. Natl. Acad. Sci. U.S.A. 84, 2454-2458, 1987
A;Title: Adult B-cell repertoire is biased toward two heavy-chain variable-region genes
A;Reference number: A94148; MUID:87175692
                                                                                                                                                                                                                                                                                       Ig heavy chain V region (BFL1) - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Datc: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change 16-Aug-1996
C:Accession: D25913
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Best Local Similarity
"arches 7; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Bird, J.; Galili, N.; Link, M.; Stites, D.; Sklar, J.
Exp. Med. 168, 229-245, 1988
A;Title: Continuing rearrangement but absence of somatic hypermutation in immunoglobulin A;Reference number: PL0116; MUID:88286083
A;Accession: PL0120
                    Query Match
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A; Residues: 1-94 <BIR>
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C;Sapecies: Homo sapiens (man)
C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 16-Aug-1996
C;Accession: PL0120
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PL0120
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A.Residues: 1-82 <SAN>
A.Residues: GB:M26996
A;Cross-references: GB:M26996
A;Note: the sequence shown differs from the authors' translation after residue
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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A;Title: Nucleotide sequences of eight human natural autoantibody V-H regions reveals ap A;Reference number: A92830; MUID:89235232
A;Recession: C34964
A;Recession: C34964
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J. Immunol. 142, 4054-4061,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 09-мау-1997
C;Accession: C34964
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Best Local Similarity 8/...
7; Conservative
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87.5%;
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Pred. No. 6.3;
  DB 2;
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Search completed: June 13, Job time: 741 sec

2001,

14:23:10

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G:Genetics:
A:Gene: Ig VHX24b
C:Superfamily: immunoglobulin V region; immunoglobulin homology
F;11-94/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                             R/Chies, J.A.; Lembezat, M.P.; Freitas, A.A.
EUr. J. Immunol. 24, 1657-1664, 1994
A/Title: Entry of B lymphocytes into the persistent cell
A/Reference number: 153392; MUID:94298870
A/Accession: I67528
                                                                                                                                                                             A:Status: preliminary: translated from GB/EMBL/DDBJ A:Mesidues: 1-94 <RES>
                                                                                                                                                                          A; Cross-references:
                                                                                                                                                                                                                                                                                     C:Species: Mus sp. (mouse)
C:Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jan-2000
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167528
CD33 antigen homolog - mouse (fragment)
                                 Query Match
Best Local Similarity 8/...
7; Conservative
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Matches 7; Conservative
                           1 GGGCVQPG 8
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GGGLVQPG 11
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P01789 P01790 P01798 P01788 P01791 P01792 P01793 P01793 P017794 P01772 P01783 P01805

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1 mus musculu
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2 mus musculu
3 mus musculu
4 mus musculu
4 mus musculu
5 homo sapien
6 mattus norv

mus musculu

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Post-processing: Minimum
Maximum
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OS Ovis a

OC Eukary

OC Mammal

OC Bovida

OX NCBI.J
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AC P02443;
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OS Ovis aries
OC Eukaryota;
OC BOVIGAC;
OR MAMMALIA; E:
OC BOVIGAC;
OX NCBI_TaxID=1
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
01-AUG-1991 (Rel. 19, Last annotation update)
P02441;
P02441;
P02441;
P02441;
P1-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
01-AUG-1991 (Rel. 19, Last annotation update)
KERATIN, HIGH-SULFUR MATRIX PROTEIN, IIIA3.
Ovis aries (Sheep).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
Bovidae; Caprinae; Ovis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Swart L.S., Haylett T.;
Swart L.S., Haylett T.;
Studies on the high-sulphur proteins of reduced Merino wool. Amino acid sequence of protein SCMKB-3A3.*;
Biochem. J. 133:641-654(1973).
-I-FUNCTION: THE KERATIN PRODUCTS OF MANMALIAN EPIDERMAL DERIVATIVES
-I-FUNCTION: THE KERATIN PRODUCTS OF MANMALIAN EPIDERMAL DERIVATIVES
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Eukaryota; Metazoa; Chordata; Craniat
Mammalia; Eutheria; Cetartiodactyla;
Bovidae; Caprinae; Ovis.
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                                                                                                                                                                                                                                                                                   KRA3_SHEEP
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HV01_RAT
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HV21_MOUSE
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Pecora; Bovoidea;

Length 130;

THE LARGER, LOW-SULFUR

Pecora;

Bovoidea;

Euteleostomi;

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                                                                                                                                              Keratin.
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                                                                                                                                                                       InterPro;
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P02442;

P02442;

21-JUL-1986 (Rel. 01, Created)

21-JUL-1986 (Rel. 01, Last sequence update)

15-DEC-1998 (Rel. 37, Last annotation update)

KERATIN, HIGH-SULFUR MATRIX PROTEIN, IIIA3 (M2.6 PROTEIN).

Capra hircus (Goat).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalla; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;

NCBI_TaxID-9925;

11
                                                                                                                                                              "Studies on the high-sulphur proteins of reduced mohair The isolation and the amino acid sequence of protein SCMKB-M2.6.";

J. S. Afr. Chem. Inst. 28:250-263(1975).

"I- FUNCTION: THE KERATIN PRODUCTS OF MAMMALIAN EPIDERNAL DERIVATIVES SUCH AS WOOL AND HAIR CONSIST OF MICROFIBRILS EMBEDDED IN A RIGID MATRIX OF OTHER PROTEINS. THE MATRIX PROTEINS INCLUDE THE HIGH-SULFUR AND HIGH-TYROSINE KERATINS, HAVING MOLECULAR WEIGHTS OF 6-20 KDA, WHEREAS THE MICROFIBRILS CONTAIN THE LARGER, LOW-SULFUR PIR; A92978; KRCT3M.

TR; B92978; KRCT3M.

InterPro; IRROD2494;

"Sam; PF01500. Keration."
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                       1 GGGCVQP 7
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SEQUENCE
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InterPro; IPR002494; -
GGGCLQP 21
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Blochem J. 133:641-654(1973).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [1]
SEQUENCE.
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6; Conserv
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14255
                                                      81.6%;
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85.7%;
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MISSING (IN MINOR COMPONENT).
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Pred. No.
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Bacteria; Proteobacteria;
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EUTJ.
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                      229 GGSCMQPG 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alba H., Baba T., Fujita K., Hayashi K., Honjo A., Horiuchi T., Ikemoto K., Inada T., Isono K., Isono S., Itoh T., Kanai K., Kasai H., Kashimoto K., Kim S., Kimura S., Kitagawa M., Kitakawa M., Makino K., Mashimoto H., Mishio Y., Oshima T., Saito N., Sampei G., Seki Y., Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
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Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland V. Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F., Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J., "The complete genome sequence of Escherichia coli K-12."; Science 277:1453-1474(1997).
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P SEQUENCE FROM N.A.

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(C STRAIN-ATCC 14028S;

RM MEDIAINE-95173114; PubMed=7868611;

RA Stojilykovic I., Baeumler A.J., Heffron F.;

RA Stojilykovic I., Baeumler in Salmonella typhimurium: nucle "Ethanolamine utilization in Salmonella typhimurium: nucle sequence, protein expression, and mutational analysis of cohe butE eutJ eutG eutH gene cluster.";

""cteriol. 177:1357-1366(1995).
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Bernard O., Gough N.M.;
Bernard O., Gough N.M.;
Bernard O., Gough N.M.;
Between translocated vH and mu constant regions genes.";
Proc. Natl. Acad. Sci. U.S.A. 77:3630-3634(1980).
-1- MISCELLANEOUS: THE SEQUENCE OF THE FIRST 197 RESIDUES (
REGION WAS ALSO DETERMINED & DIFFERS IN ONLY 3 POSITION
CORRESPONDING PORTION OF THE MOUSE MOPC 104E MU CHAIN.
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21-JUL-1986 (Rel. 01, Created)
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16 HEAVY CHAIN V-III REGION HPC76 (FRAGMENT).
Mus musculus (Mouse).
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                                                                                                 Pfam; PF00047;
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                   MEDLINE-78158406; PubMed-417344; Vrana M., Rudikoff S., Potter M.
                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
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21-JUL-1986 (Rel.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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IG HEAVY CHAIN V-III REGION
         Pfam; PF00047;
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Vrana M., Rudikoff S., Potter M.;
"Sequence variation among heavy chains
                                                                           'Sequence variation
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Rodentia;
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Sciurognathi; Muridae;
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SQ

DISULFID NON\_TER SEQUENCE

22 113 113

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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence upda
15-JUL-1999 (Rel. 38, Last annotation up
IG HEAVY CHAIN V-III REGION ABE-47N.
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata;
Mammalia; Eutheria; Rodentia; Sciurognat
(7)
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I- MISCELLA.

BINDS INULIN.

PIR; C93818; AVMS09.

InterPro; IPR003006; -

Pfam; PF00047; 19; 1

Immunoglobulin V region.

"FULFID 22 98

"A; 12647 MW
                                                         Biochemistry 16:1170-1175(1977).
                                                                                                                                               SEQUENCE.
MEDLINB=77134726; PubMed=402936;
Vrana M., Rudikoff S., Potter M.;
"Heavy-chain variable-region sequence
protein;";
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P01798; P01798; P17UL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
IG HEAVY CHAIN V-III REGION E109.
Mus musculus (Mouse), Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Mouseia; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WEDLINE-78158406; PubMed-417344;
Vrana M., Rudikoff S., Potter M.;
"Sequence variation among heavy chains from inulin-binding myeloma proteins."
Proc. Natl. Acad. Sci. U.S.A. 75:1957-1961(1978).
-1- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 39; DB pred. No. 3.4; 0; Mismatches
                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
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WAS ISOLATED FROM A MYELOMA PROTEIN THAT
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Pred. No.
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3.4;
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                                                                                                                                 inulin-binding myeloma
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                                            A MYELOMA PROTEIN THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 113;
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34_MOUSE

HV34_MOUSE

STANDARD;

P01803;

21-JUL-1986 (Rel. 01, Created)
21-JUL-1996 (Rel. 01, Last sequence updaling the sequence of the sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                         Mus musculus (Mouse).
Eukaryota; Metazoa; (Mammalia; Eutheria; F. NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SQ SQ
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731_MOUSE
731_MOUSE
731_MOUSE
741-1986 (Rel. 01, Created)
751-0CT-1993 (Rel. 27, Last sequence update of the control of the control
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Best Local s
Matches 7
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InterPro; IPRO3006; -
Pfam; PF00047; Ig; 1.
Immunoglobulin V region.
DISULFID 198
NON TER 113 113
SEQUENCE 113 AA; 12732;
SEQUENCE.
MEDLINE-81216632; PubMed-6787122;
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SEQUEN
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Pfam; PF00047; 19; 1
Immunoglobulin V region.
DISULFID 9
NON_TER 113 113
SEQUENCE 113 AA; 12675 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10090;
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7; Conservative
                                                                                                                                                                                                  (Mouse)
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; 12732 MW;
                                                                                                                              Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79.6%;
87.5%;
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                                                                                                                Craniata; Ver
Sciurognathi;
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Pred. No. 3.4;
0; Mismatches
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Pred. No.
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Sciurognathi; Muridae; Murinae; Mus
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                                                                                                  Vertebrata; Euteleostomi;
thi; Muridae; Murinae; Mus
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RESULT 9
HV39\_MM
AC P01798
DT 21-JUL
DT 11-JUL
DT 15-JUL
DT 15-JUL
OC Mammal
OX MUS mu
OC Mammal
OX NCBLT
RN [1]
RP SEQUEN
RX MEDLIN
RX

SEQUENCE

B

8

GGGLVQPG 15

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1 GGGCVQPG

8

Query Match 79.6 Best Local Similarity 87.5 Matches 7; Conservative

79.6%; 87.5%;

RESULT 10

HV30\_MOUSE P01799;

STANDARD;

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1 GGGCVQPG 8 ||| |||| 8 GGGLVQPG 15

Query Match Best Local S Matches 7

Similarity 7; Conser

79.6%; 87.5%;

Conservative

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RESULT
HV33_MC
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Best Local S
Matches 7
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Best Local S
Matches 7
       HV33_MOUSE STANDARD; PRT; 115
P01802;
21-UUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence upda
15-UUL-1999 (Rel. 38, Last annotation up
IG HEAVY CHAIN V-III REGION W3082.
Mus musculus (Mouse).
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InterPro; IPR003006; -.
Pfam; PF00047; 19; 1.
Immunoglobulin V region.
22 98
                                                                              MOUSE
                                                                                                                                                                                                          NON_TER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rudikoff S., Potter M.;
"Immunoglobulin heavy chains from anti-inulin myeloma evidence for a new heavy chain joining segment.";
J. Immunol. 127:191-194(1981).
-I- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYEL
                                                                                                                                                                                                                                                                                                                MEDLINE-82099361; PubMed-6798111;
Johnson N., Slankard J., Paul L.,
"The complete V domain amino acid
                                                                                                                                                                                                                                                                                                                                                                                                     HV32_MOUSE STANDARD; PRT; 115 AA. P01801; P11801; P21-JUL-1986 (Rel. 01, Created) 21-JUL-1986 (Rel. 01, Last sequence update) 15-JUL-1999 (Rel. 38, Last annotation update) IG HEAVY CHAIN V-III REGION J606.
  Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                    binding proteins.";
J. Immunol. 128:302-307(1982).
-1- MISCELLANEOUS: THIS CHAIN
                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID-10090;
                                                                                                                                                                                                                                      [mmunoglobulin
                                                                                                                                                                                                                                                           nterPro;
                                                                                                                                                                                                                       MISULLN.
BINDS INULIN.
(; C92811; AVMS06.
terPro; IPR003006; -.
tam; PF00047; 1g; 1.
tam; PF00047; 1g; 1.
tam; PF00047; 1g; 1.
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                                                                                                                    GGGLVQPG
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7; Conser
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115
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113
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12810 MW;
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Rodentia;
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12691 MW;
Chordata; Craniata; Vertebrata; Euteleostomi;
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87.5%;
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87
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Pfam; PF00047; 1g; 1.
Immunoglobulin V region.
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J. Biol. Chem. 252:7192-7199(1977).

-i- MISCELLANBOUS: THE SEQUENCES OF THE V REGIONS OF THE HEAVY CHAINS OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL OF IGH AND IGN AND IGN AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH WITH BICLONAL OF IGN AND 
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IG HEAVY CHAIN V-III REGION TIL.
Homo sapiens (Human)
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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Johnson N., Slankard J., Paul L.,
"The complete V domain amino acid
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Q9uhf1 homo sapien
Q9yml5 drosophila
Q9yml5 rattus sp.
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Q9ulb6 homo sapien
Q9ul90 homo sapien
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Q16039 drosophila
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35	35	35	. 35	35	35	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36.5	37	37	37	38
71.4	71.4	71.4	71.4	71.4	•	73.5		•	•		•	•		•	•	•			•		•	•	•	•	
245	223	223	206	131	5 <b>7</b>	4128	4097	2721	2717	2395	2233	1689	1235	1193	588	587	583	550	417	168	270	647	645	377	870
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046338	Q9ZKY6	025533	Q90802	Q9UL88	Q9UP29	P78527	Q13327	076973	Q94710	Q27167	Q94711	P78528	Q9VYF3	Q19617	Q9Y5N2	088831	022889	094883	Q9UER3	Q9S2V7	P90606	094104	094106	Q9U6R4	002660
046338 naegleria s	Q9zky6 helicobacte	025533 helicobacte	2 gal	_	homo		homo	076973 paramecium					Q9vyf3 drosophila	Q19617 caenorhabdi	Q9y5n2 homo sapien		9				P90606 trypanosoma			Q9u6r4 trypanosoma	002660 bos taurus

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XX MEDLINE-98037514; PubMed-9371463;
XX MEDLINE-98037514; PubMed-9371463;
XX MEDLINE-98037514; PubMed-9371463;
XX Smith D.R., Doucette-Stamm L.A., DeLoughery C., Lee H.-M., DuBois J.,
XX Aldredge T., Bashirzadeh R., Blakely D., Cook R., Gilbert K.,
XX Aldredge T., Hashirzadeh R., Blakely D., Cook R., Qiu D.,
XX Spadafora R., Vicare R., Wang Y., Wierzbowski J., Gibson R.,
XX Aldredge T., Bush D., Safer H., Pathwell D., Prabhakar S.,
XX McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M.,
XX McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M.,
XX McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M.,
XX McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M.,
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XX McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M.,
XX McDougall S., Shimer G., Goyal A., Pietrovski S., Ch
                                                                                                                                           Matches
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01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
HETERODISULFIDE REDUCTASE HDRD RELATED PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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Methanobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       026242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Methanobacterium thermoautotrophicum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=2166;
100 GGGCVQP 106
                                                                                                                                    Local Similarity tes 7; Conserv
                                                                1 GGGCVQP 7
                                                                                                                                        87.8%; Score 43; DB 1; Length 145; ilarity 100.0%; Pred. No. 2.2; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
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RESULT
OPVMH5
ID W09
AC OS
DT O1
DT O1
DT O1
OC E
RO C E
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RX MEDLINE-20196006; PubMed-10731132;
RA Adams M.D. Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Adams M.D., Celniker S.E., Holt R.A., Hoskins R.A., Galle R.F.,
RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Yandell M.D., Zhang Q., Chen L.X.,
RA George R.A., Lewis S.E., Richards S., Champe M., Pfeiffer B.D.,
RA Hallew R.M., Bayer S.C., Helt G., Nelson C.R., Miklos G.L.G.,
RA Ballew R.M., Bayendale J., Dayraktaroglu L., Beasley E.M.,
RA Beson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Burtis K.C., Belos P.V., Berman B.P., Brokstein P., Brottier P., Statis R.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Durbin K.J., Evangelista C.C., Ferriar C., Ferriera S., Fleischmann W.,
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Best Local S
Matches 7
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O9VMH5;
O1-MAY-2000 (TIEMBLIEL 13, C)
O1-OCT-2000 (TIEMBLIEL 13, L)
O1-OCT-2000 (TIEMBLIEL 15, L)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta,
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID-7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-BERKELEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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Q9UHF1;
01-MAY-2000 (TrEMBLrel. 13, C
01-MAY-2000 (TrEMBLrel. 13, L
01-OCT-2000 (TrEMBLrel. 15, L
NOTCH4-LIKE PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PFAM; PF(
PROSITE;
PROSITE;
PROSITE;
PROSITE;
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INTERPRO; IPR000561;
INTERPRO; IPR001881;
PFAM; PF000008; EGF; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (SEP-1999)
EMBL; AF186111; AAF0:
HSSP; P35555; 1EMN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. Sheppard P., Jelin O'Hara P.;
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZNEU1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2; PS00010; ASX_HYDROXYL; 1.
2; PS00102; EGF_1; UNKNOWN_1.
2; PS01186; EGF_2; UNKNOWN_1.
2; PS01187; EGF_CA; 1.
2; PS01187; EGF_CA; 1.
3; PS01187; EGF_CA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 87.97; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jelinek L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999) to the EMBL/GenBank/DDBJ databases
AAF01429.1; .
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87.5%;
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MW; 5740BB845ED5A988 CRC64;
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Last sequence update)
Last annotation updat
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Pred. No.
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, Last annotation |
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Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4; Length 273;
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RESULT Q9QV16
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AC Q9
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DT 01
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DT 01
DE PH
CO Mac
OC Mac
OC Mac
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Best Local S
Matches 6
                                                                                                                                                                                                                                         O9QV16 PRELIMINARY; PRT; 15 AA.
O9QV16; O1-MAY-2000 (TIEMBLIEL 13, Created)
O1-MAY-2000 (TIEMBLIEL 13, Last sequence upon-
O1-CCT-2000 (TIEMBLIEL 15, Last annotation prolactin-BINDING PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-95094032; PubMed-8000909;
                                                                                                                                                                                                                                                                                                  "Serum prolactin-binding protein (PRL-BP) of human identified as IgG.";
C. R. Acad. Sci., III, Sci. Vie 317:293-298(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus sp.
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FLYBASE; FB900088420; Kr-h1.
INTERRRO; IPR000822; -
PFAM; PF00096; zf-C2H2; 6.
PROSITE; PS00028; ZINC_FINGER_C2H2; 6.
SEQUENCE 622 AA; 68241 MW; 01E2B29ED64B9E8B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AE003612; AAF52343.1; -. HSSP; P08047; 1SP2.
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GGGLVQPG 15
                                                            GGGCVQPG
                                                                                                              Similarity 87.97; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
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iding protein (PRL-BP) of human
                                                                                                                                                      79
87
                                                                                                                                               . 58;
                                                                                                                                                                                                                                                                       MW;
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                                                                                                                                  Score 39;
Pred. No.
                                                                                                Pred. No. 1.3;
0; Mismatches
                                                                                                                                                                                                                                                   35ED2512FF3FA369 CRC64;
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Pred. No. 8.6;
2; Mismatches
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1.3;
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                                                                                                    <u>,,</u>
                                                                                                                                                      Length 15;
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                                                                                                Indels
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C Q9UL90;
C Q9UL90;
C Q9UL90;
JT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-JWA-2000 (TrEMBLrel. 14, Last sequence update)
DT 01-JUN-2000 (TREMBLREL. 14, Last annotation update)
DE MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE REGIONS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eut
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Best Local S
Matches 7
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Best Local S
Matches 7
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QUILB6;
Q1 MAY-2000 (TrEMBLrel. 13, Created)
Q1-MAY-2000 (TrEMBLrel. 13, Last seque
Q1-QCT-2000 (TrEMBLrel. 15, Last annot
TMUNOGLOBULIN HEAVY CHAIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-98277139; PubMed-9614934; MEDLINE-98277139; PubMed-9614934;
                                                                                                                                                                                      NON_TER
                                                                                                                                                                                                                                               Clin. Immunol. Immunopathol. 87:184-192(1998)
EMBL: AF035024; AAD56260.1; -
INTERPRO; IPR003006; -
PFAM: PF00047; 19; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Human VH gene sequence.";
Submitted (NOV-1999) to the
EMBL; AB035268; BAA87067.1;
HSSP; P01772; 2FB4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HUNDON HUMAN).
HOMO Sapiens (Human).
Homo sapiens (Human).
Chordata;
Hotazoa; Chordata;
Hotazoa; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERPRO; IPR003006; -. PFAM; PF00047; 19; 1.
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                                                                                                                                                                                                                                                                                                                                      fetus.";
                                                                                                                                                                                                                                                                                                                                                                             Young D.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                     "Myosin-reactive autoantibodies
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||| ||||
7 GGGLVQPG 14
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                                       GGGCVQPG
GGGVVQPG
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7; Conserv
                                                                                  Similarity 87.177; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kayano H.;
                                                                                                                                                                                      113
113 AA;
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95 AA;
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                                                                                                                                                                                      113
12437 MW;
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Last annotation update)
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                                                                                Score 39; DB pred. No. 8.6; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 39; DB Pred. No. 7.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; | Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90A8C6D16D22574A CRC64;
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                                                                                                                         4;
                                                                                                                                                                                                                                                                                                                                                        carditis
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                                                                                                                                                                                                                                                                                                                                                                                               Berney
                                                                                                                       Length 113;
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                                                                                  Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGION (FRAGMENT).
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                                                                                                                                                                                                                                                                                                                                                        and normal
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                                          Query Match
Best Local S
Matches 7
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Best Local S
Matches
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Q9UL91;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
Q1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Q1-JUN-2000 (TrEMBLrel. 14, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
                                                                                                                                                 NON_TER
NON_TER
SEQUENCE
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SEQUENCE FROM N.A.
MEDLINE-98277139; PubMed-9614934;
MEDLINE-98277139; PubMed-9614934;
MEDLINE-98277139; PubMed-9614934;
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09UL93;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation updat
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIAB
                                                                                                                                                                                                                               Clin. Immunol. Immunopathol. 87:184-192(1998). EMBL; AF035023; AAD56259.1; -. INTERPRO; IPR003006; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON_TER
                                                                                                                                                                                                               PFAM; PF00047;
                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE=98277139; PubMed=9614934;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                      fetus."
                                                                                                                                                                                                                                                                                                                                            Young D.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Clin. Immunol. Immunopathol. EMBL; AF035021; AAD56257.1;
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Young D.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                        "Myosin-reactive autoantibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fetus."
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7 GGGVVQPG
1 GGGCVQPG
                                          Similarity
7; Conserv
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116 AA;
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118 A
                                            Conservative
  8
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                                                                                                                                                   AA;
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                                                                                                                                                                                                                                                                                                                                                                  Van
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12434 MW;
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12843
                                                                                                                                                                                                                                                                                                                                                                  der
                                                                79.6%;
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                                                                                                                                                                                                                                                                                                                                                                Merwe
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                                          0;
                                          Score 39; DB
Pred. No. 8.9;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata;
Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0DA0348154DD6061 CRC64;
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                                                                                                                                                                                                                                                                                                                        rheumatic
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CHAIN VARIABLE
                                                            DВ
3.9;
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                                                                                    4,
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                                                                                                                                                                                                                                                                                                                          carditis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 116
                                                                                    Length 118;
                                                                                                                                                   CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Euteleostomi;
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                                                                                                                                                                                                                                                                                                                          normal
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Best Local S
Matches 7
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PFAM; PF00047;
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SEQUENCE FROM N.A.
MEDLING-98277139; PubMed-9614934;
MEDLING-98277139; PubMed-9614934;
T-111 B., Van der Merwe P.L.,
                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
HOMO Sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                             Myosin-reactive autoantibodies in rheumatic carditis and normal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9UL71,
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SEQUENCE
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SEQUENCE FROM N.A.
MEDLINE-98277139; PubMed-9614934;
MEDLINE-98277139; PubMed-9614934;
Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9UL72;
Q9UL72;
Q9UL72;
Q1-MAY-2000
Q1-MAY-2000
Q1-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Myosin-reactive autoantibodies in rheumatic carditis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-CT-2000 (TrEMBLrel. 15, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
GGGCVQPG
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                                     Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immunol. Immunopathol. 87:184-192(1998). AF035042; AAD56278.1; -. P01772; 2F84.
                                                                                                                                                                                            IPR003006; -. 0047; 1g; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 87.57; Conservative
                                                                                                                            121 121
121 AA; 13154 MW;
                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        118
118 AA;
                                                                                                                                                                                                                                        2FB4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                              79.6%;
87.5%;
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12872 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79.68;
87.58;
                   Score 39; DB Pred. No. 9.1; O; Mismatches
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                  2F045CCFA5D50736 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                           Kalis N.N.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                           DB 4;
9.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                118
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8.9;
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                                                         Length 121;
                                                                                                                                                                                                                                                                                                                                        Berney
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGION (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                        S.M.,
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               0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
        Gaps
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        0
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99Y509
AC 05
                  Best Local Similarity
                                                                  Query Match
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Best Local Similarity
Matches 7; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9Y509
PREJUNCT:
Q9Y509;
O1-NOV-1999 (TrEMBLrel. 12, Created)
O1-NOV-1999 (TrEMBLrel. 12, Last sequence update)
O1-NOV-1999 (TrEMBLrel. 15, Last annotation update)
VIA PROTEIN (FRAGMENT).
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                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.

MEDLINE-96071149; PubMed-7475288;
Cao J., Vescio R.A., Rettig M.B., Hong C.H., Kim A., Lee J.C.,
Lichtenstein A.K., Berenson J.R.;
"A CD10-positive subset of malignant cells is identified in multiple
myeloma using PCR with patient-specific immunoglobulin gene primers.";
Leukemia 9:1948-1953(1995).
EMBL; $80860; Aaplt339.1; -.
HSSP; P01772; 2FB4.
                                                                                                                                                                                                  PFAM; PF00047; 1g; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; F
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFAM, PF00047; 19; 1.
NON_TER 1 1 12
NON_TER 122 122
SEQUENCE 122 AA; 13:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EQUENCE FROM N.A.
MEDLINE-98277139; PubMed-9614934;
Tin B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12
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Mammalia; Eutheria;
NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9UL84;
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                                                                                                                                                      147 AA;
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15768 MW;
                  79.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122
13579 MW;
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       Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                         8489FCAAA7BC925C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 39; DB 4; Length 122;
Pred. No. 9.2;
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DB
11;
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; Homo.
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; Homo.
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Length 147;

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RESULT
Q9VXU0
Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
An Amanatides P.G., Scherer S.E., Li P.M., Hoskins R.A., Galle R.F.,
An George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
An Evandon R.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
An Hrandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
Brandon R.C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
An Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
Bellew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
An Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
An Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
An Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
An Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
An Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
An Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
An Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
An Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
An Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
An Cherry J.M., Davenport L.B., Davenport 
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Best Local S
Matches 6
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plasmid patcolor,";
plasmid 27:130-140(1992).
EMBL; M60875; AAA25373.1; -.
INTERPRO; IPR000345; -.
PROSITE; PS00190; CYTOCHROME_C; UI
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Q49182;
Q1-NOV-1996
Q1-NOV-1996
Q1-JUN-2000
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Eukaryota;
Pterygota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-2000
01-MAY-2000
01-OCT-2000
                                                                                                                                                                                                                                                                            MEDLINE=20196006; PubMed=10731132;
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AC13E.
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MEDLINE=92311251; PubMed=1615063;
Labidi A., Mardis E., Roe B.A., Wallace R.J. Jr
"Cloning and DNA sequence of the Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA SEQUENCE, ORFS 1 AND 2.
Mycobacterium fortuitum.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                             Ephydroidea;
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NCBI_TaxID=1766;
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                                                                                                                                                                                                                                                                                                                                                                                                             melanogaster (Fruit fly).
Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
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(TremBLrel. 01, Last seq
(TremBLrel. 14, Last ann
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Last sequence update)
Last annotation update)
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715EEBE768D9A856 CRC64;
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ium fortuitum var fortuitum
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                        Matches
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                      Similarity 6; Conserv
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                        Conservative
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Durbin K.J., Evangelista C.C., Ferriaz C., Ferriara S., Fleischmann W.,

RA Fosler C., Gabriellan A.E., Garg N.S., Gelbart W.M., Glasser K.,

RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,

RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,

RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,

RA Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,

RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,

RA Liu X., Mattel B., McIntosh T.C., McLeod M.P., McEherson D.,

RA Liu X., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,

RA McHulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,

RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,

RA Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,

RA Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,

RA Spier E., Spradling A.C., Stapleton M., Stupski M.P., Smith T.,

RA Spier E., Spradling A.C., Stapleton M., Stupski M.P., Smith T.,

RA Williams S.M., Woodage T., Weinstock G.M., Weissenbach J.,

Wang Z.-Y. Wassarman D.A., Weinstock G.M., Weissenbach J.,

Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,

RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,

RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,

RA Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu X., Smith H.O.,

RA Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu X., Smith H.O.,

RT "The genome sequence of Drosophila melanogaster.";

Staple J. Jana A., 
                                                                                           PFAM; PF00211; guanyla SEQUENCE 1709
                                                                                                                                                                                            MEDLINE-97431620; PubMed-9287125;
Iourgenko V., Kliot B., Cann M.J., Le
"Cloning and characterization of a Du
homologous to mammalian type IX.";
FEBS Lett. 413:104-108(1997).
EMBL; AF005630; AAB70469.1; -
HSSP; P26769; IAB8.
FLYBASE; FBGD0022710; Ac35C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O16039 PRELIMINARY; PRT; 1708 AA. (016039; 01-JAN-1998 (TrEMBLrel. 05, Created) 01-JAN-1998 (TrEMBLrel. 05, Last sequence update) 01-OCT-2000 (TrEMBLrel. 15, Last annotation update) ADENILYL CYCLASE ISOFORM DAC9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PFAM; PF00211; guanylate_cyc; SEQUENCE 1690 AA; 186868 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FLYBASE; FBgn0022710; Acl3E. INTERPRO; IPR001054; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AE003499; AAF
HSSP; P26769; 1AB8.
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                111; guanylate_cyc; 2
1708 AA; 189139 MW;
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79.68;
75.08;
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75.0%;
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                        Score 39;
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Pred. No. 1.1e+02;
D; Mismatches 2;
Pred. No. 1.1e+02;
                                                                                                                   AC1A45CF856D5BFB CRC64;
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                                                                                                                                                                                                                                                                                                                                                Levin L.R.;
Drosophila adenylyl cyclase
                              DB 5;
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                           Length 1708;
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D Q '1 GGGCVQPG 8 |||| || |798 GGGCCSPG 805

Search completed: June 13, 2001, 14:29:40 Job time: 541 sec

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Result
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM protein - protein search, using sw model
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run on:
   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                             Issued_Patents_AA:*

1: /cgn2_6/ptodata/2/1:

2: /cgn2_6/ptodata/2/1:

3: /cgn2_6/ptodata/2/1:

4: /cgn2_6/ptodata/2/1:

5: /cgn2_6/ptodata/2/1:

6: /cgn2_6/ptodata/2/1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length: 0
length: 2000000000
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  BLOSUM62
Gapop 10.0 , Gapext 0.
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1.953 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd
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/cgn2_6/ptodata/2/1aa/5B_COMB.pep:*
/cgn2_6/ptodata/2/1aa/6A_COMB.pep:*
/cgn2_6/ptodata/2/1aa/6B_COMB.pep:*
/cgn2_6/ptodata/2/1aa/6B_COMB.pep:*
/cgn2_6/ptodata/2/1aa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/2/1aa/backfiles1.pep:*
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                                US-08-759-804A-54
US-08-859-931A-2
US-08-08-33-451B-113
US-08-471-780C-80
US-08-471-282A-80
US-08-471-282A-80
US-08-466-710C-80
US-08-466-710C-80
US-08-467-282B-119
US-08-471-282A-119
US-08-471-282A-119
US-08-466-710C-119
US-08-466-710C-119
US-08-468-739C-119
US-08-468-739C-119
US-08-958-75
US-08-318-157B-30
                                                                                                                                                                                                                        US-08-331-398A-55
US-08-401-908-14
US-08-331-397B-55
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                    sequence
                                                                                                                                                                                                                                                       Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                        Sequence
          66, Appl
66, Appl
65, Appl
55, Appl
55, Appl
54, Appl
54, Appl
54, Appl
80, Appl
80, Appl
80, Appl
80, Appl
119, Appl
STRANDEDNESS:
TOPOLOGY: lin
MOLECULE TYPE:
US-08-331-398A-66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 1
US-08-331-398A-66
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GENERAL I
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	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6		79.6	79.6	79.6	79.6	79.6	79.6	79.6
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ALIGNMENTS	US-08-211-202-117	PCT-US93-10555-3	US-08-428-197-3	US-07-942-245-21	US-07-942-245-17	PCT-US93-10555-4	US-08-428-197-4	PCT-US93-10555-48	US-08-665-202-31	US-08-428-197-48	US-07-942-245-37	US-08-211-202-118	US-08-211-202-116	US-08-765-783A-105	US-08-497-312-21	US-08-053-451B-126	US-08-162-102C-36	US-08-470-139-17
	Sequence 117, App	Sequence 3, Appli	Sequence 3, Appli	Sequence 21, Appl	Sequence 17, Appl	Sequence 4, Appli	Sequence 4, Appli	Sequence 48, Appl	`	Sequence 48, Appl	Sequence 37, Appl	Sequence 118, App	•	٠.	Sequence 21, Appl	٠.	Sequence 36, Appl	Sequence 17, Appl

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SOFTWARE: PatentIn Release #1.0, Vers
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/331,398A
FILING DATE: 28-OCT-1994
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: US 07/767,331
APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
                                                                                       TELEFAX: (415) 543-504
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Pastan, Ira
APPLICANT: Willingham, Mark
APPLICANT: FitzGerald, David
APPLICANT: Brinkmann, Ulrich
APPLICANT: Pai, Lee
                                                                                                                                                           TELEPHONE: (415) 543-9600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Single Chain B3 Antibody Fusion Proteins TITLE OF INVENTION: and Their Uses (as amended)
NUMBER OF SEQUENCES: 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                       NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: One Market I
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION:
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94105-1492
                                         amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E: Townsend and Townsend and Crew
One Market Plaza, Steuart Street Plaza
                                                                    15 amino acids
linear
                                                                                                                                     543-5043
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US-08-331-397B-66
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                                                                                                                                                                                                                Query Match
Best Local Similarity
Watches 7; Conserve
                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear MOLECULE TYPE: protein US-08-652-558-42
                                                                                     Sequence 66, Application US/08331397B
Patent No. 5981726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-652-558-42
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                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: 617-345-910
TELEFAX: 617-345-9111
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 42, App. 5861
               TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                       APPLICANT: Pastan, Ira
APPLICANT: Benhar, Itai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 30,237
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-345-9100
TELEFAX: 617-345-011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: LIN, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/652,558
FILING DATE: JUNE 6, 1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/IB94/0038:
FILING DATE: NOVEMBER 21, 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/A SOFTWARE: WORDERFECT 6.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch diskette, 1.4 mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: BANNER & WITCOFF
STREET: 75 STATE STREET, 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: LIN, AUGUSTINE YEE-THARN TITLE OF INVENTION: HUMANIZED ANTIBOTITLE OF INVENTION: THEREOF SEQUENCES: 52
                                                                                                                                                                           æ
                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                 1 GGGCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: YANKWICH, LEON REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 87.5%;
nes 7; Conservation
                                                                                                                                                                       GGGLVQPG 15
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                                                                       INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BOSTON
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                                                                                                                                                                                                                                                                                                                                                                   15 amino acids
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                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                                                                                        79.6%;
Chimeric and Mutationally Stabilized Tumor-
Specific Antibody Fragments, Fusion Proteins, and Uses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HUMANIZED ANTIBODIES AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCT/IB94/00387
                                                                                                                                                                                                                            0
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23RD FLOOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 39; DB
Pred. No. 3.9;
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                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                     DB 2; Length 15;
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US-08-759-804A-65
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Best Local Similarity
""" onserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-331-397B-66
                                                                                                                                                                        APPLICANT: Pastan, Ira
APPLICANT: Willingham, Mark
APPLICANT: Willingham, David
APPLICANT: Brinkmann, Ulrich
APPLICANT: Brinkmann, Ulrich
APPLICANT: Pai, Lee
TITLE OF INVENTION: Tumor-Specifi
TITLE OF INVENTION: Fusion Protei
NUMBER OF SEQUENCES: 68
                                                                                                                                                                                                                                                                                                                                               Sequence 65,
Patent No. 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
NAME: HUNTEY, TOM
REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 015280-126:
TELEPHONE: (415) 543-9600
mmrrany (415) 543-9600
                                                                                                                                                                                                                                                                                                                                    GENERAL
ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (415) 543-96
TELEFAX: (415) 543-5043
INFORMATION FOR SEQ ID NO: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 15 amino acids
                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 GGGLVQPG 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GGGCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
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FILING DATE: 28-OCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: One Market F
CITY: San Francisco
STATE: California
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                                                                                                                                                                                                                                                                                                                                INFORMATION:
                                                                                             San Francisco
: California
                                                                                                                                                                                                                                                                                                                                                 5, Application US/08759804A
5990296
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                                                                               USA
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One Market Plaza, Steuart Street Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-OCT-1994
                                                                                                                                                                                        Tumor-Specific Antibody Fragments Fusion Proteins, and Uses Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79.6%;
87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      015280-126120US
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 15
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US

OPERATING SYSTEM:

PC-DOS/MS-DOS Release #1.0,

Version #1.30

FILING DATE:

03-DEC-1996

US/08/759,804A

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US-08-331-398A-55
; Sequence 55, Application US/08331398A
; Patent No. 5608039
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-08-759-804A-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPAX: (415)
INFORMATION FOR SEQ ID NO: 65
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
AFRICTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
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APPLICATION NUMBER: US 07/596,289
ATTORNEY/AGENT INFORMATION:
NAME: Weber, Ellen L.
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 015280-126
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
FILING DALL.
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 07/767,331
APPLICATION ON BER-1991
                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 6: CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 07/767,331 FILING DATE: 30-SEP-1991 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Pastan, Ira
APPLICANT: Willingham, Mark
APPLICANT: FitzGerald, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Single Chain B3 Antibody Fusion Proteins TITLE OF INVENTION: and Their Uses (as amended)
                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                    ADDRESSEE: Townsend and Townsend and Crew STREET: One Market Plaza, Steuart Street Plaza CITY: San Francisco
STATE: California
                                                                                                APPLICATION NUMBER: US/08/331,398A FILING DATE: 28-OCT-1994
                                                                                                                                                                                                                                                       ZIP: 94105-1492
                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 GGCLVQPG 15
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RESULT 6
US-08-401-908-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 543-9600
TELEPAX: (415) 543-5043
INFORMATION FOR SEQ ID NO: 55:
                                                                                                     INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: YOShinobu TITLE OF INVENTION: # TITLE OF INVENTION: # NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: pept.
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE: heavy chain of C179
                                                                                                                                                                        REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                           CLASSIFICATION: 536 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 07/596,289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 12-OCT-1990 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            79.6%; [ocal Similarity 87.5%; nes 7; Conservative
                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/4 FILING DATE: March 10, 1995
                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM Com
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: U.S.A. ZIP: 20005
                                                                                                                                                                                                                          NAME: Warren M. Cheek, Jr. REGISTRATION NUMBER: 33,36
                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 38 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
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No. 5684146
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: Wenderoth, Lind & Ponack 805 Fifteenth Street, N.W., #700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yoshinobu OKUNO et al.
                                                                                                                                                                                                                                                                                                                                                                                                                           E: Diskette, 3
IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A DNA WHICH CODES FOR THE VARIABLE REGION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            38,498
FR: 015280-126110US
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                                                                                                                                                                                                                                                                                                                                                                                                                                              3.5 inch, 1.44 mb
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Pred. No. 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
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Query Match
Best Local Similarity 87.5%
Warches 7; Conservative

79.6%; 87.5%;

Score 39; DB 1; Pred. No. 4.7; Mismatches

Length 18; Indels

0;

Gaps

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US-08-401-908-14

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RESULT 8
US-08-759-804A-54
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                                                                                                              Matches
                                                                                                                             Query Match
Best Local
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 18 amino acids
TYPE: amino acids
STRANDENECS
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                                                                                                                                                                                        TOPOLOGY: 11
                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 543-9600
TELEFAX: (415) 543-5043
NFORMATION FOR SEQ ID NO: 55:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Pastan, Ira
APPLICANT: Benhar, Ital
TITLE OF INVENTION: Chime
TITLE OF INVENTION: Speci
TITLE OF INVENTION: There
NUMBER OF SEQUENCES: 68
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -08-331-397B-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, VeCURRENT APPLICATION UNBER: US/08/331,397B FILING DATE: 28-OCT-1994 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 94105-1492
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                        Local
                                                         œ
                                                                               1 GGGCVQPG 8
                                                                                                                                                                                                                 STRANDEDNESS
                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 015280-126120US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Bat Catt PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                     GGGLVQPG 15
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                                                                                                     Similarity 87.5%;
7; Conservative
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One Market Plaza, Steuart Street Plaza
                                                                                                                                                                                        peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chimeric and Mutationally Stabilized Tumor-
Specific Antibody Fragments, Fusion Proteins, and Uses
Thereof
                                                                                                     0;
                                                                                                              Score 39;
Pred. No.
                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Version #1.30
                                                                                                              DB 2; Length 18;
                                                                                              1; Indels
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                                                                                        Gaps
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Sequence 2, Application US/08859931A
Patent NO. 5945510
GENERAL INFORMATION:
APPLICANT: FASANO, Alessio
TITLE OF INVENTION: SUBSTANTIALLY I
TITLE OF INVENTION: PHYSIOLOGICAL I
TITLE OF INVENTION: MANMALIAN TIGH
                                                                                                                                           RESULT 9
US-08-859-931A-2
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                                                                                                                                                                                                                                                                                                                                                       US-08-759-804A-54
                                                                                                                                                                                                                                                               Query Match 79.6
Best Local Similarity 87.5
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION UNMBER: US/08/759,804A FILING DATE: 03-DEC-1996 CLASSIFICATION: 536.
PRIOR APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: US 08/331,398 FILING DATE: 28-OCT-1994 APPLICATION NUMBER: US 07/767,331 APPLICATION NUMBER: US 07/767,331 FILING DATE: 30-SEP-1991 APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-OCT-1990 ATTORNEY/AGENT INFORMATION: REGISTRATION NUMBER: 32,762 REFERENCE/DOCKET NUMBER: 015280-1261 REGISTRATION NUMBER: 015280-1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: (415) 576-02
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: 11
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 54, Application US/08759804A Patent No. 5990296
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 18 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                        GGGLVQPG 15
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                                                                                                                                                                                                                                                                                                                                                                                                              amino acid
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Two Embarcadero Center, Eighth Floor
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Willingham, Mark
FitzGerald, David J
Brinkmann, Ulrich
                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                 peptide
                  SUBSTANTIALLY PURE ZONULIN, PHYSIOLOGICAL MODULATOR OF MAMMALIAN TIGHT JUNCTIONS
                                                                                                                                                                                                                                                                                  79.6%;
87.5%;
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                                                                                                                                                                                                                                                             Score 39; DB;
Pred. No. 4.7;
0; Mismatches
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Best Local Similarity
Thes 7; Conserve
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 113, Application US/08053451B Patent No. 5955584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (202) 293-7860
TELEFAX: (202) 293-7860
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/053,451B
FILING DATE: 26-APR-1993
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Halluin, Albert P.
                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Chen, Francis W. APPLICANT: Ditlow, Charles C APPLICANT: Calenoff, Emanuel APPLICANT: Calenoff, Emanuel Control of the Control of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear MOLECULE TYPE: peptide HYPOTHETICAL: NO
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APPLICATION NUMBER: US/08/859,931A
FILING DATE: 21 MAY 1997
CLASSIFICATION: 514
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
NAME: Halluin, Albert P.
REGISTRATION NUMBER: 25,227
REFERENCE/DOCKET NUMBER: 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: New York
STATE: New York
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: US
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1155 Avenue of the Americas
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Pred. No. 5
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                                                                                                                                             APPLICATION NUMBER: FR 934
FILING DATE: 21-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Potter, Jane E.R.
REGISTRATION NUMBER: 33,33
REFERENCE/DOCKET NUMBER: 0
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                                                                         TELEFAX: 202-408-4400 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/471,780C
FILING DATE: 06-UN-1995
CLASSIFICATION: 530
                                                  SEQUENCE CHARACTERISTICS
                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                      APPLICATION NUMBER: FR 92 FILING DATE: 21-AUG-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner
STREET: 1300 I Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Casterman, Cecile
APPLICANT: Hamers, Raymond
TITLE OF INVENTION: Immunoglo
NUMBER OF SEQUENCES: 130
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FILING DATE: 17-AUG-1993
FILING DATE: FR 92402326.0
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OTHER INFORMATION: /note= "Where Xaa = k or g = OTHER INFORMATION: Gln"
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TYPE: amino acid
STRANDEDNESS: unknown
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TELEX: 66141 PENNIE
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LENGTH: 26 amino acids
TYPE: amino acid
STRANDEDNESS: single
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                                                                                                         TELEPHONE:
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87.58;
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ORGANISM:
US-08-467-282B-80
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Best Local Similarity 8/...,
Best Local Similarity 8/...,
Conservative
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US-08-467-282B-80
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FILING DATE: 17-AUG-1993
APPLICATION NUMBER: FR 92402326.0
PRIOR APPLICATION DATA: 21-AUG-1992
APPLICATION DATA: FR 93401310.3
APPLICATION UMBER: FR 93401310.3
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO:
                                                                                                                                                                     MOLECULE TYPE:
ORIGINAL SOURCE:
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                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 26 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 33,332
REFERENCE/DOCKET NUMBER: 040
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: US/08/467,282B FILING DATE: 06-UN-1995 CLASSIFICATION: 536 PRIOR APPLICATION DATA: 115 OR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                         Local Similarity les 7; Conserv
                              1 GGGCVQPG 8
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                                                                                                                                                                                                          STRANDEDNESS:
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Casterman, Cecile APPLICANT: Hamers, Raymond TITLE OF INVENTION: Immunoglo
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CITY: Washington
STATE: D.C.
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                                                                     Conservative
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                                                                                                                                                 Camelus dromedarius
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                                                                            Score 39; pred. No. 6.
                                                                0; Mismatches
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Pred. No. 6.
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                                                                                    DB 1; Length 26;
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6.5;
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Best Local Similarity 87.5%
Matches 7; Conservative
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                                                                     Sequence 80, Application US/08466710C Patent No. 5874541
                                                       GENERAL INFORMATION:
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         APPLICANT: Casterman, Cecile APPLICANT: Hamers, Raymond TITLE OF INVENTION: Immunoglu
                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 202-408-4400 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: FR 924
FILING DATE: 21-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 934
FILING DATE: 21-MAY-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 80, Application US/08471282A Patent No. 5840853
                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy
                                                                                                                                                      8 GGGLVQPG 15
                                                                                                                                                                              1 GGGCYOPG 8
                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
TOPOLOGY: 1ir
                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: POTTER, Jane E
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
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NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Casterman, Cecile APPLICANT: Hamers, Raymond
                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/106,944 FILING DATE: 17-AUG-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner
STREET: 1300 I Street, N.W.
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                                                                                                                                                                                                                                                                                                                                                         : 26 amino acids
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Immunoglobulins Devoid of Light Chains 130
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87.5%;
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Pred. No. 6.5;
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NUMBER OF SEQUENCES:

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Matches Query Match

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US-08-468-739C-80
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PILING DATE: 21-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 93401310.3
FILING DATE: 21-MAY-1993
FILING DATE: 21-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: POTTET: Jane E.R.
REGISTRATION NUMBER: 04958.0008-
REFERENCE/DOCKET NUMBER: 04958.0008-
REFERENCE/DOCKET NUMBER: 04958.0008-
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4400
INFORMATION FOR SEQ ID NO: 80:
SEQUENCE CHARACTERISTICS:
LENGTH: 26 amino acids
TYPE: Bmino acids
TYPE: Bmino acids
STRANDENNESS: Single
                                                                                                                                                                                                                                   Sequence 80, Application US/08461
Patent No. 6015695
GENERAL INFORMATION:
APPLICANT: Casterman, Cecile
APPLICANT: Hamers, Raymond
TITLE OF INVENTION: Immunogic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 87.
Matches 7; Conservative
                                COUNTRY: USA
ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
ORIGINAL SOURCE:
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APPLICATION NUMBER: US/0
FILING DATE: 17-AUG-1993
APPLICATION NUMBER: FR 9
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/466,710C
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner
ATREET: 1300 I Street, N.W.
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                                                                                                                       CITY: Washington STATE: D.C.
COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
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1300 I Street, N.W.
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Pred. No. 6
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 Version #1.25
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ORIGINAL SOURCE:
ORGANISM: Camelus dro
US-08-468-739C-80
Search completed: June 13, Job time: 627 sec
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Best Local Similarity
Matches 7; Conserv
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TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIELLATION DATA:
PRIOR APPLICATION NUMBER: US 08/106,944
FILING DATE: 17-AUG-1993
ADDITION NUMBER: FR 92402326.0
                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: POTTER, Jane E.R.
REGISTRATION NUMBER: 33,332
REFERENCE/DOCKET NUMBER: 04958.0008-00000
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FR 9:
FILING DATE: 21-AUG-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 21-MAY-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: 06-JUN CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                              LENGTH: 26 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                               1 GGGCVQPG 8
                                                                                                                                                                                                                                                                                                    TOPOLOGY:
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06-JUN-1995
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21-MAY-1993
                                                                                                                                                               79.6%;
               2001,
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0; Gaps

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Title:
Perfect score:
Sequence:
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Maximum DB
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Maximum Match 100%
Listing first 45 summaries
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score greater the
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length: 2000000000
100.0
85.4
83.3
81.2
81.2
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75.0
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Match
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113:
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116:
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Gapop 10.0 , Gapext 0.5
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Copyright (c) 1993 - 2000 Compugen Ltd
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/SIDS6/gcgdata/geneseq/geneseqp/AA1990.DAT:*
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/SIDS6/gcgdata/geneseq/geneseqp/AA1984.DAT:*
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/SIDS6/gcgdata/geneseq/geneseqp/AA1988.DAT:*
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Y79125
Y79114
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            Peptide antagonist
Peptide antagonist
Peptide antagonist
Peptide antagonist
Peptide antagonist
Amino acid sequenc
Peptide antagonist
Peptide antagonist
Protein encoded by
Arabidopsis thalia
Carbamate hydrolas
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36 75.0 583 21 G31663 375.0 1487 19 W61562 375 72.9 13 20 W88384 35 72.9 12 W88384 35 72.9 15 21 B41718 35 72.9 15 22 B4138 35 72.9 158 20 W88388 35 72.9 158 20 W88398 35 72.9 158 20 W88398 35 72.9 24 20 Y59970 35 72.9 24 20 Y59970 35 72.9 24 20 W88382 36 72.9 24 20 W88382 37 72.9 24 20 W88382 38 72.9 26 21 B42204 39 72.9 27 20 Y41769 30 72.9 27 20 Y41770 31 B42326 32 Y41770 33 72.9 27 20 Y41771 35 72.9 27 20 Y41771 36 72.9 27 21 B42326 37 72.9 27 21 B42326 38 72.9 27 21 B42326 39 72.9 27 21 B42326 30 72.9 27 21 B42326 31 72.9 27 21 B42326 32 72.9 27 21 B42326 33 72.9 27 21 B42443 34 70.8 599 17 W16599 34 70.8 599 17 W03692 35 72.9 29 21 W16597 36 72.9 29 21 W16599 37 70.8 599 17 W03692 38 70.8 599 17 W03692 39 70.8 599 17 W03692	45	44	4ω	42	41	40	39	38	37	36	35	ω 4	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
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idopsis t n type II n type II																																		
idopsis to type III not II																																		

## ALIGNMENTS

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RESULT
Y79126
Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                   05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                         Y79126;
                                        Fasano
                                                                                  03-AUG-1998;
                                                                                                                          17-FEB-2000
                                                                                                                                               WO200007609-A1
                                                                                                                                                                    Synthetic.
                                                                                                       28-JUL-1999;
                                                                                                                                                                                                                                                               Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                             Y79126 standard; Peptide; 8 AA.
                                                            (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                  98US-0127815.
                                                                                                       99WO-US16683
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New peptide antagonist of zonulin useful as antiinflammatory agent for

WPI; 2000-205565/18

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RESULT
Y79125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This present sequence is that of a peptide antagonist of zonulin CC (2), one of 25 such peptides (see Y79105-29) of the invention, CC which bind to a zonula occludens toxin (20T) receptor. Yet do not CC (TJ). The peptide antagonists are based on a common motif of ZOT cC (TJ). The peptide antagonists are based on a common motif of ZOT preceptor in the prepared by chemical synthesis or by use of the combinant DNA techniques. The peptide antagonists are used as an CC antiinflammatory agents in the treatment of gastrointestinal confidence in the zor receptor in the intestinal confidence in the zor receptor in the intestinal confidence in the stinal permeability and the peptide is useful for CC intesting intestinal permeability and the peptide is useful for CC caused by infection, e.g. Clostridium difficile infection, antestinal overgrowth, whisple's disease, diseases with CC collagenous colitis, inflammatory bowel disease, diseases with CC correction of congenital heart disease with Fontan's operation, confiction tilestinal intestinal lymphamic and segmentaric confidence disease, disease, without ulceration, e.g. Menetrier's disease, cc. e.g. systemic lupus erythematosus or food allergies, primarily to cc. milk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
   (UYMA-) UNIV MARYLAND BALTIMORE
                                       03-AUG-1998;
                                                                      28-JUL-1999;
                                                                                                                                                                                       Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                  17-FEB-2000
                                                                                                                                 WO200007609-A1.
                                                                                                                                                              Synthetic.
                                                                                                                                                                                  gastrointestinal inflammation; therapy
                                                                                                                                                                                                                                                                                           Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                          05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                    Y79125 standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GGGCVQDG 8
|||||||||
1 999cvqdg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      treating cerebral ischemia, stroke, shigellosis, viral gastroenteritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,
                                    98US-0127815
                                                              99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; S
100.0%; F
tive 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 48; DB 21;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cerebral edema, gastritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
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CC (Ti). The pertide antagonists are based on a common motif of ZOT CC and human zonulins, which is believed to be critical for receptor CC recombinant DNA techniques. The peptide antagonists are lost of ZOT CC recombinant DNA techniques. The peptide antagonists are used as an CC inflammation, where they bind to the ZOT receptor in the intestinal CC and yet does not physiologically modulate the opening of Ty in the CC intestine. Gastrointestinal inflammation conditions give rise to CC treating intestinal permeability and the peptide is useful for CC caused by infection, e.g. Clostridium difficile infection, concerning the conditions that cause protein losing enteropathy CC enterocolitis, shigellosis, viral gastroenteritis, parasite mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, correction of congenital heart disease, with Fontan's observation, collisis, inflammatory bowel disease, diseases marked by correction of congenital heart disease with Fontan's observation, collisis, inflammatory bowel disease, diseases with correction of congenital heart disease with Fontan's observation, collisis, shipplicy disease, diseases, diseases, diseases, with correction of congenital heart disease with Fontan's observation, collisis, and after surgical mucosal disease, without ulceration, e.g. Menetrier's disease, collisis, e.g. systemic lupus erythematosus or food allergies, primarily to milk.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludent toxin (207) receptor, yet do not (TJ). The peptide antagonists are based on a common motif of zon binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 47; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
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RESULT
Y79114
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Best Local
                                                                                                                       Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIY; vulnerary; antialler; hypotensive; immunosuppressive; antiparasitic; vasotropic
   28-JUL-1999;
                                  17-FEB-2000.
                                                                                                                  hypotensive; immunosuppressive; antipar gastrointestinal inflammation; therapy
                                                               W0200007609-A1
                                                                                                                                                                                                                           Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                 05-JUN-2000
                                                                                                                                                                                                                                                                                                  Y79114;
                                                                                                                                                                                                                                                                                                                     Y79114 standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                    1 GGGCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                    999cvqpg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                          (first entry)
99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         85.4%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 41;
Pred. No.
                                                                                                                            "HIV; vulnerary; antiallergic; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 21;
3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CC (TJ). The peptide antagonists are based on a common motif of ZOT CC and human zonulins, which is believed to be critical for receptor chinding. They can be prepared by chemical synthesis or by use of antiinflammatory agents in the treatment of gastrointestinal callinguation, where they bind to the ZOT receptor in the intestine candy et does not physiologically modulate the opening of TJ in the concerned intestinal permeability and the peptide is useful for treating intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infection, conlagenous colitis, inflammation, whipple's diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by imphatic obstruction, e.g. congenital intestinal lymphanglectasia, correction of congenital heart disease with Fontan's operation, correction of congenital heart disease with Fontan's operation, collagenous disease, eosinophilic gastroenteritis, and immune disease, collagense, eosinophilic gastroenteritis, and immune diseases, collagense, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                     hypotensive; immunosuppressive; antiparasitic; vasotropic gastrointestinal inflammation; therapy.
                                                                                                                                      Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junction, the contract of the contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 44; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    shigellosis, viral gastroenteritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-205565/18
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                          Synthetic
                                                                                                                                                                                                                                                                                                            Peptide
                                                                                                                                                                                                                                                                                                                                                                           05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y79118 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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                                                                                                                                                                                                                                                                                                            antagonist
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                                                                                                                                                                                                                                                                                                                                                                       (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       83.3%;
                                                                                                                                                                                                                                                                                                            zonulin.
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Pred. No. 3.2e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 8;
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Schinding. They can be proved to the combinant DNA techniques. The peptide antagonists are combinant DNA techniques. The peptide antagonists are combinant DNA techniques. The peptide antagonists are combinant DNA techniques. The peptide are gent in the intestinal inflammation, where they bind to the ZOT receptor in the intestine CC intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for CC treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with CC mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, CC collagenous colitis, inflammatory bowel disease, diseases marked by Imphatic obstruction, e.g. congenital intestinal lymphangiectasia, correction of congenital heart disease with Fontan's operation, CC mucosal diseases without ulceration, e.g. Menetrier's disease, collac disease, eosinophilic gastroenteritis, and immune disease, e.g. ac. systemic lupus erythematosus or food allergies, primarily to
New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200007609-A1.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        which bind to a zonula occludens toxin (20T) receptor, yet do physiologically modulate the opening of mammalian tight juncti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 45; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-AUG-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Diogically modulate the opening of mammalian tight junctions. The peptide antagonists are based on a common motif of ZOT
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                                                                   Y36831
                                                                        RESULT
                                                                                                               Query Match
Best Local S
Matches 7
                                                  Y36831;
                                       07-OCT-1999
                                                             Y36831 standard; Protein; 196
                                                                                         _
                                                                                                    1 GGGCVQDG
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                                                                                        Similarity
7; Conserv
                                                                                                                Conservative
                                       (first entry)
                                                                                         æ
                                                                                                    8
                                                                                                                     81.2%;
87.5%;
                                                                                                               Score 39; DB
Pred. No. 3.2e
0; Mismatches
                                                                                                                0
                                                                                                                     3.2e+05;
                                                                                                                           DB
                                                                                                                           21:
                                                                                                                          Length
                                                                                                                Indels
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bartholinitis;

paratrachoma;

eye disease;

nongonococcal uretritis; epidymitis;

pneumopathy;

inclusion conjunctivitis;

is; genital disease; perihepatitis; cervicitis; salpingitis;

nonendemic trachoma

lymphogranulomatosis

conventional trachoma;

Amino acid sequence of a Chlamydia trachomatis protein.

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RESULT
Y79122
                                                                                                                                                                                                                                                                                                                                                                                       Matches
            03-AUG-1998;
                                                                                                      Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                    17-FEB-2000
                                                                        WO200007609-A1
                                 28-JUL-1999;
                                                                                             Synthetic
                                                                                                                                                                              Peptide antagonist of zonulin.
                                                                                                                                                                                                   05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                           Y36754-Y37949 are encoded by open reading frames (ORFs) of the genome of Chlamydia trachomatis (see Z01425). The polypeptides can be used as can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye paratrachoma, and inclusion conjunctivitis; genital diseases such as conventional trachoma, nonendemic trachoma, nongonococcal uretritis, epidymitis, cervicitis, salpingitis, and venereal lymphogranulomatosis. The polypeptides of the invention may be of use in treating these diseases.
                                                                                                                                                                                                                             Y79122;
                                                                                                                                                                                                                                         Y79122 standard; Peptide; 8 AA
                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                          150 ggycvqdg 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 710-711; 1755pp; English.
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28-NOV-1997;
17-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genome sequence of Chlamydia trachomatis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-371125/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-NOV-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                               1 GGGCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                     196 AA;
                                                                                                                                                                                                                                                                                                                                   Conservative
          98US-0127815
                              99WO-US16683
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97FR-0015041.
97FR-0016034.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-IB01939.
                                                                                                                                                                                                                                                                                                                                            81.2%;
87.5%;
                                                                                                                                                                                                                                                                                                                               Score 39; DB
Pred. No. 55;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                  20;
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                                                                                                                                                                                                                                                                                                                                               Length 196;
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                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                          0
RESULT
                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 7
     W0200007609-A1
                            Synthetic
                                                               Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral;
                                             gastrointestinal
                                                              antibacterial; cytostatic;
                                                                                                             Peptide antagonist of zonulin.
                                                                                                                                 05-JUN-2000 (first entry)
                                                                                                                                                         Y79128;
                                                                                                                                                                       Y79128 standard; Peptide; 8
                                                                                                                                                                                                                          1 GGGCVQDG 8
|| |||||
1 gglcvqdg 8
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Conservative

0

Score 38; DB 21; Pred. No. 3.2e+05; 0; Mismatches 1

Length

Indels

0;

Gaps

0

79.2%; 87.5%;

immunosuppressive; antiparasitic; vasotropic; inal inflammation; therapy.

anti-HIV; vulnerary; antiallergic;

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CC (TJ). The peptide antagonists are based on a common motif of ZOT CC and human zonulins, which is believed to be critical for receptor CC binding. They can be prepared by chemical synthesis or by use of CC recombinant DNA techniques. The peptide antagonists are used as an ininflammatory agents in the treatment of gastrointestinal conditions where they bind to the ZOT receptor in the intestine CC inflammation, where they bind to the ZOT receptor in the intestine CC increased intestinal permeability and the peptide is useful for CC caused by infection, e.g. Clostridium difficile infection, conditions that cause protein losing enteropathy CC enteroclitis, shighlosis, viral gastroenterits, parasite CC infestation, bacterial overgrowth, whipple's disease, diseases with CC cultagenous colitis, inflammatory bowel disease, diseases marked by arcoidosis lymphoma, mesenteric tuberculosis, and after surgical CC correction of congenital heart disease with Fontan's operation, CC sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical CC coeliac disease, eosinophilic gastroenteritis, and immune disease, CC efficiency systemic lupus erythematosus or food allergies, primarily to conlike.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This present sequence is that of a peptide antagonist of (2), one of 25 such peptides (see Y79105-29) of the inverwhich bind to a zonula occludens toxin (ZOT) receptor, ye physiologically modulate the opening of mammalian tight
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
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                                                                                                                                                                        Y23621
                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                       c recombinant DNA techniques. The peptide antagonists are used as an inflammation, where they bind to the 207 receptor in the intestinal inflammation, where they bind to the 207 receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphanglectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, coeliac disease, eosinophilic gastroenteritis, and immune disease, coeliac disease, eosinophilic gastroenteritis, and immune disease,
                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                      e.g. systemic lupus erythematosus or food milk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                              MAP; piglet fatal gene therapy.
                                                                                  Protein encoded by a reading frame
                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 48; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-205565/18
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                         Porcine circovirus
                                                                                                          06-SEP-1999 (first entry)
                                                                                                                                   Y23621;
                                                                                                                                                          Y23621 standard;
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|ggglvqdg 8
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 Location/Qualifiers
                                                                                                                                                          Protein; 586
                                                          wasting
                                                                                                                                                                                                                                                                              79.28;
                                                            disease;
                                                                                                                                                                                                                                                                   Score 38; DB 21;
Pred. No. 3.2e+05;
0; Mismatches 1
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                                                            vaccine;
                                                                                  of the porcine circovirus genome
                                                                                                                                                                                                                                                                                                                                                                allergies, primarily to
                                                           circovirus infection;
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25-FEB-1999;
05-MAR-1999;
                                  25-FEB-2000;
                                                                                   EP1033405-A2
                                                                                                          Arabidopsis thaliana.
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                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                   2000EP-0301439
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99US-0121825
99US-0123180
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MAP is the french acronym for piglet fatal wasting disease. The polypeptides can be used to detect anti-MAP antibodies. The antibodies can be used to detect map antipens. The nucleotide sequences can be used as probes or primers for detecting MAP nucleit acids. The nucleotide sequences, polypeptides, vectors, (pseudo)viral particles, transformed cells and compounds selected by the screening assay can be used in pharmaceutical compositions. The polypeptides, nucleotide sequences, vectors and transformed cells can be used in vaccines against MAP corrections. The vectors, (pseudo)viral particles and
                      Protein identification; signal transduction pathway; metabolic hybridisation assay; genetic mapping; gene expression control;
                                                                                                                                                                                                                                                                       G31665 standard; Protein; 474 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is encoded by a reading frame of the positive strand of a porcine circovirus genome which is associated with MAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 7; Fig 3; 89pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nucleotide sequence of porcine circovirus MAP against MAP circovirus infection and in gene 1
hybridisation assay; genetic mapping; termination sequence.
                                                                                                        Arabidopsis thaliana protein fragment SEQ ID NO: 38065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          transformed cells can be used for gene therapy.
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85.7%;
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3.1e+02;
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RESULT 10
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Pure carbamate hydrolase isolation from Arthrobacter oxidans -
            WPI; 1989-341858/47.
N-PSDB; N92585.
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12-OCT-1999;
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      14-MAY-1999;
14-MAY-1999;
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FFXGX0000000XXX
                                                                                                                                                       Purified carbamate hydrolase can be used to isolate/identify A.oxidans carbamate hydrolase gene system. This system makes plants resistant to the herbicide phenmedipham. Carbamate hydrolase has pH optimum 6.8, mol. wt. 50-60kp, isoelectric point 6.2, and can cleave phenmedipham to methyl 3-hydroxyphenylcarbamate, m-toluidine and CO2, so inactivating it. It is produced by A.oxidans DSM 4044 which contains the 41 kb plasmid
                                                                                                                                                                                                                                                                                                       destroy herbicide phenmedipham, and DNA encoding it, for imparting resistance to plants.
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2 GGCVQDG 8
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Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter;

Arabidopsis thaliana

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W61562
ID W61562
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Best Local Similarity
Matches 6; Conserv
                                                Sequence
                                                                                                                                                                                                                  Disclosure; Fig
                                                                                                                                                                                                                                                                                            Croucher LJ, Hollander AP;
                                                                                                                                                                                                                                                                             WPI; 1998-447376/38.
                                                                                                                                                                                                                                                                                                                (UYSH-) UNIV SHEFFIELD.
                                                                                                                                                                                                                                                                                                                                  06.-FEB-1997;
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                                                                                                                                                                                                                                                                                                                                                                                     WO9835235-A1.
                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W61562;
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||||||
565 999cvq 570
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  Similarity 85. 6; Conservative
                                              1487 AA;
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                                                                                                                                                                                                                                                                                                                                97GB-0002252.
                                                                                                                                                                                                                                                                                                                                                 98WO-GB00304.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0162142
         75.0%;
85.7%;
Score 36; DB
Pred. No. 1e+0
0; Mismatches
 0,
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This sequence represents the human type II collagen alpha-chain which CC is used in a method to produce an immunoassay kit comprising of two CC antibodies (Ab1 and Ab2), mono- or poly-clonal, or their fragments, CC II collagen fragment that is released from degraded cartilage). The kits immunoassays, specifically enzyme-linked CC are designed for sandwich immunoassays, specifically enzyme-linked CC serum or synovial fluid). The kits are used for therapy, diagnosis (e.g. coutine screening for arthritis and other cartilage diseases, also to CC remunatorial arthritis and osteoarthritis, or monitoring progression of CC growth hormone) and for drug screening (to identify, and assess efficacy CC of, anti-arthritic agents and matrix metalloprotease inhibitors). CC cliffee, derived from the N-terminus of the alpha I chain, have CC concentration that allows accurate measurement by immunoassay.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunoassay kit containing two antibodies recognising coupled epitope(s) on collagen fragments - and new antibodies, for diagnosing arthritis etc., also prognosis and screening for anti-arthritic agents or inhibitors of matrix metallo-protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Type II collagen alpha-chain; human; immunoassay; antibody; C-IIfree; epitope; cartilage; enzyme-linked immunosorbent assay; ELISA; therapy; diagnosis; arthritis; growth disorder; prognosis; drug screening; anti-arthritic agent; matrix metalloprotease inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human type II collagen alpha-chain protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; 57pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein; 1487
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100.0%; Pr
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Pred. No.
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3. 4.3e+02;
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DB 19; . le+03;

Length 1487;

1;

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Gaps

0.

32

gscvqdg

38

GGCVQDG

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RESULT 15
W88389
ID W88389
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W88384
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                                                                                                                     Best Local Similarity
Matches 6; Conserv
                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                                           This peptide comprises the first epidermal growth factor-like domain (EGF-1), i.e. amino acid residues 105-135, of human Zneul (see w88381), a new neuro-growth factor-like protein. Zneul can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. It may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul may also be used cancer, to repopulate blood cells after chemotherapy, to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to use also cancer.
W88389 standard; Protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zneu-1; neuro-growth factor-like protein; human; breast cancer glioblastoma; pituitary adenoma; Alzheimer's disease; therapy; nerve regeneration; haematopolesis; fertility; contraception; antibody; epidermal growth factor; EGF.
                                                                                                                                                                                      Sequence
                                                                                                                                                                                                              Zneul, can be used diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                                               Claim 6; Page 53; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                           disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-095324/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Blumberg H,
Whitmore TE;
                                                                                                                                                                                                                                                                                                                                                                                                                                           New mammalian Zneul disease, cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ZYMO ) ZYMOGENETICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-JUN-1997;
18-JUN-1997;
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                                                                                                                                                                                                                                                    regenerate nerves.
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lneul, can be used
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                                                                 ggscvqpg
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                                                                                                                     Conservative
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97US-0050143
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                                                                                                                                                                                                                         Claimed Zneul polypeptides (see also W88382-97), domains of Zneul and epitope-bearing portions of to raise specific antibodies for use e.g. in
                                                                                                                                                                                                                                                                                                                                                                                                                                          polypeptides - used
to repopulate blood
                                                                                                                                72.98;
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                                                                                                                     <u>.</u>
                                                                                                                                Score 35;
Pred. No.
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40;
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                                                                                                                                              20;
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                                                                                                                                              Length 31;
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Search completed: June Job time: 663 sec

13,

2001, 14:25:44

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                                                                                                                          This claimed polypeptide comprises amino acid residues 105-177 of the human Zneul mature protein (see W88382), i.e. the 2 epidermal growth factor-like domains (see also W88384). The including specific domains (see also W88384-85) of Zneul. Zneul is a new neuro-growth factor-like protein that can be used as a growth, maintenance, or differentiation factor in the spinal cord, heart, spleen, testis, thyroid and lymph nodes. Zneul may also play a role in breast cancer, glioblastomas, and pituitary adenomas. Zneul can be used to treat Alzheimer's disease, cancer, to repopulate blood cells after chemotherapy to stimulate myofibroblast proliferation, stimulate or inhibit growth factors made in the placenta, in fertility and contraception, or to regenerate nerves. Claimed Zneul polypeptides (see also W88382-97), including specific domains of Zneul and epitope-bearing portions of Zneul, can be used to raise specific antibodies for use e.g. in
                                                  Ouery Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zneu-1; neuro-growth factor-like protein; human; breast cancer;
glioblastoma; pituitary adenoma; Alzheimer's disease; therapy;
nerve regeneration; haematopoiesis; fertility; contraception;
                                                                                                                         Sequence
                                                                                                                                                   Zneul, can be used
diagnostic assays.
                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                        New mammalian Zneul disease, cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-095324/08
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18-JUN-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-1998;
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 10
                           1 GGGCVQDG 8,
ggscvqpg
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                                                                                                                        7.3
                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
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97US-0050143
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                                                                                                                                                                                                                                                                                                                                                                                                         polypeptides - used to, e.g. treat Alzheimer's to repopulate blood cells
                                                                  72.9%;
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Pred.
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                                                                  No.
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                                                      Indels
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Title:
Perfect score:
Sequence:
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                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                     NO.
Pred. No.
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                                                                                                                                                                                                                                                                                                      seq
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protein search, using sw
                                                                                                                                                                                                                                                                                                       length:
                                                                                                                                                                                                                                                                                                                        hits satisfying chosen parameters:
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
700.88
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Gapop 10.0 ,
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48
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pir2:*
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collagen alpha 1'(
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hypothetical prote
acetylglutamate ki
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    hypothetical prote precorrin-67 methy
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45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30
33	33	33	ω ω	ω ω	33	ω ω	33	33	33.5	33.5	34	34	34	34	34
68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	69.8	69.8	70.8	70.8	70.8	70.8	70.8
323	188	161	141	132	131	131	131	130	626	561	695	685	681	680	633
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G83067	H38192	A46189	140577	KRGT3J	T05837	KRGT3M	KRSHA3	KRSH3A	T27319	T27318	T36007	T40162	S37809	XJBYTK	T47524
hypothetical prote	chitin synthase (E	vasotocin - Pacifi	hypothetical prote	keratin high-sulfu	hypothetical prote	keratin high-sulfu	keratin high-sulfu	keratin high-sulfu	hypothetical prote	hypothetical prote	probable transketo	transketolase - fi	transketolase (EC	transketolase (EC	hypothetical prote

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interferon regulatory factor 3 - chicken
(;Species: Gallus gallus (chicken)
(;Species: Gallus gallus (chicken)
(;Date: 10)-Oct-1995 #sequence_revision 03-Nov-1995 #text_change 21-Jul-2000
(;Accession: S56753
R;Grant, C.E.; Vasa, M.Z.; Deeley, R.G.
Nucleic Acids Res. 23, 2137-2146, 1955
Nucleic Acids Res. 23, 2137-2146, 1955
A;Reference number: S56753; MUID:95334365
A;Accession: S56753; MUID:95334365
A;Accession: S56753; MUID:95334365
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C;Superfamily: collagen alpha 1(I) chain; fibrillar collagen carboxyl-terminal homolo C;Superfamily: collagen alpha 1(I) chain; fibrillar collagen carboxyl-terminal homolo C;Superfamily: collagen alpha 1(I) chain; extracellular matrix; glycoprotein C;Reywords: alternative splicing; colled collagen sequence #status predicted <SIG>
F;125/Domain: signal sequence #status predicted <PRO>
F;26-184/Domain: amino-terminal propeptide #status predicted <PRO>
F;36-95/Domain: von Willebrand factor type C repeat homology <VWC>.
F;185-206/Product: collagen alpha 1(II) chain (fragment) #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   collagen alpha 1(II) chain precursor - chicken (fragment) C;Species: Gallus gallus (chicken) C;Date: 22-Nov-1993 #sequence_revision 26-Jul-1996 #text_C;Accession: S18250 R;Nah, H.D.; Upholt, W.B.
J. Biol. Chem. 266, 23446-23452, 1991 A;Title: Type II collagen mRNA containing an alternativel. A;Reference number: S18250; MUID:92078225 A;Accession: S18250.
  A; Molecule type: mRNA
A; Residues: 1-491 <GRA>
A; Cross-references: EMBI
C; Superfamily: lymphoid-
                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
S56753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Thes 7; Conserve
                                                                                                       A; Status: preliminary; nucleic acid sequence
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C;Genetics:
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A; Residues: 1-206 <NAH>
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  nces: EMBL:U20338;
lymphoid-specific
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100.0%; Pred. No.
Live 0; Mismatc
  NID:g790580;
interferon re
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); PIDN:AAA86995.1; PID:g790581 regulatory factor
                                                                                                                   not shown
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ΒΒ
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                                                                                                                                                                                                   factor (IRF) family that
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Query Match

85.48;

Score 41;

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*ب* 

Length 491;

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sphingomyelin phosphodiesterase (EC 3.1.4.12) precursor - N;Alternate names: sphingomyelinase c
                                                      RESULT
S22634
                                                                                                                                                                                                                                       A:Gene: TC0628
C:Superfamily: septum formation protein maf
                                                                                                                                                                                                                                                                             A;Molecule type: DNA
A;Residues: 1-196 <TET>
A;Cross-references: GB:AE002331; GB:AE002160; NID:g7190662; PIDN:AAF39457.1; PID:g719066
A;Experimental source: strain Nigg (MoPn)
                                                                                                                                                                                                                                                                                                                                                                                    R;Read, T.D.; Brunham, R.G.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; Hickey, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, G.; Salzberg, N:Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39. A;Accession: H81681
                                                                                                                                                                                                                                                                                                                                                                            A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       maf protein TC0628 [imported] - Chlamydia muridarum (strain Nigg)
C;Species: Chlamydia muridarum, Chlamydia trachomatis Mopn
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 19-May-2000
                                                                                                                                                                                      Matches
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Best Local Similarity
Matches 7; Conserve
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A;Title: Genome sequence of an obligate intracellular pathogen of humans: Chlamydia tracel, A;Reference number: A71570; MUID:99000809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:AE001308; GB:AE001273; NID:g3328766; PIDN:AAC67944.1; PID:g33287-A;Experimental source: serotype D, strain UW-3/Cx
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A; Residues: 1-196 <ARN>
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Matches 7; Conservative
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Pred. No. 9.4;
0; Mismatches
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S50820
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Surface protein type 51B - Paramecium tetraurelia C;Species: Paramecium tetraurelia C;Deccies: Daramecium tetraurelia C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 07-De R;Scott, J.; Leeck. C.; Forney, J. Nucleic Acids Res. 22, 5079-5084, 1994 A;Title: Analysis of the micronuclear B type surface protein gene in A;Accession: $50820 50820; MUID:95098630
A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA A;Residues: 1-2395 <SCO>
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Nucleic Acids Res. 23, 3403-3410, 1995
A;Title: A novel DNA-binding domain that may form a single zinc finger motif.
A;Reference number: S59850; MUID:96032831
A;Accession: S59851.
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C;Keywords: zinc finger
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submitted to the EMBL Data Library, June 1994
A·Reference number: S59852
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A; Residues: 1-302 <SHU>
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C:Date: 15-Feb-1996
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A;Title: Molecular analysis of a sphingomyelinase C gene from Leptospira interrogans A;Reference number: S22634; MUID:90307220
A;Accession: S22634
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C;Date: 04-Dec-1992 #sequence_revision 04-Dec-1992 #text_change 08-Oct-1999
C;Accession: S22634; S10466
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Pred. No. 24;
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C;Species: Methanousculler (C;Date: 05-Dec-1997 #sequence_revision u5-Dec 1997 #sequence, 1, Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, C;Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Gibson, R.; Jiwan, Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwan, Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwan, Qiu, Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N. J. Bacteriol, 179, 7135-7155, 1997 Methanobacterium thermoautotrophicum Delta H:
A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA A;Molecule type: DNA A;Residues: 1-457 GCIA> A;Residues: 1-457 GCIA> A;Cross-references: EMBL:X73124; NID:g413923; PIDN:CAA51614.1; PID:g413982 A;Cross-references: EMBL:X73124; NID:g413923; PIDN:CAA51614.1; PID:g413982 A;Mote: the nucleotide sequence was submitted to the EMBL Data Library, June 1993 A;Mote: T; Ogasawara N; No Mascer, I; Albertill, A.M.; Alloni, G.; Azevedo, V.; Ber R;Kunst, F; Ogasawara N; N; Moscer, I; Albertill, A.M.; Alloni, G.; Azevedo, V.; Ber C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; A; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, Nature 390, 249-256, 1997 Nature 390, 249-256, 1997
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A:Note: the nucleotide sequence was submitted to the EMBL Data Library, March 1994
C:Genetics:
                                                                                                                                                                                                                                                                                                               , A.; Rapoport, G.; Danchin, A. Mol. Microbiol. 10, 371-384, 1993 A;Title: Bacillus subtilis genome
                                                                                                                                                                                                                                                                                                                                                                                    probable aldehyde dehydrogenase (NAD+) (EC 1.2.1.3) ywdH - Bacillus subtili: N;Alternate names: protein ipa-58r C;Species: Bacillus subtili: Species: Bacillus subtili: C;Date: 07-Oct-1994 #sequence_revision 26-May-1995 #text_change 20-Jun-2000 C;Accession: S39713; C70054 R;Glaser, P,; Kunst, F.; Arnaud, M.; Coudart, M.P.; Gonzales, W.; Hullo, M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA A;Residues: 1-279 <NTH>
A;Cross-references: GB:AE000874; GB:AE000666; NID:g2622110; PIDN:AAB85506.1; PID:g26221A;Experimental source: strain Delta H
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A;Introns: 472/3; 1310/3; 1821/3
C;Superfamily: G surface protein
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Best Local Similarity
Matches 6; Conserv
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29;
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Reeve, J.N.
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M.; Cho
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A;Cross-references: (
A;Experimental source
C;Genetics:
A;Gene: ywdH
                                                                           A23475
G surface protein - Paramecium primaurelia
C;Species: Paramecium primaurelia
C;Date: 31-Mar-1989 #sequence_revision 31-Mar-1989
C;Accession: A23475
R;Prat, A; Katinka, M; Caron, F; Meyer, E.
J. Mol. Biol. 189, 47-60, 1986
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S09118
G surface protein 168 - Paramecium primaurelia
C:Species: Paramecium primaurelia
C:Date: 30-Sep-1991 #sequence_revision 30-Sep-1
C:Accession: S09118
R:Prat, A.
J. MOl. Biol. 211, 521-535, 1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Title: Conserved sequences flank variable A;Reference number: S09118; MUID:90172419 A;Accession: S09118
A;Molecule type: DNA
A;Residues: 1-2704 <PRA>
A;Title: Nucleotide sequence of the Param
A;Reference number: A23475; MUID:87060934
A;Accession: A23475
A;Molecule type: DNA
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C;Superfamily: G surface
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C;Genetics:
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nilarity 75.0%;
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                                                            of the Paramecium
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2.2e+02;
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A;Introns: 28/1; 93/1; 104/3; 116/3
C;Superfamily: collagen alpha 1(I) chain; fibri
C;Keywords: coiled coil; extracellular matrix;
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R:Finer, M.H.; Aho, S.; Gerstenfeld, L.C.; Boedtker, H.; Doty, P.
J. Biol. Chem. 262, 13323-1332, 1987
A:Title: Unusual DNA sequences located within the promoter region and the first intron A:Reference number: A29367; MUID:88007542
                                                                                                                                                       A;Cross-references: GB:M17607
C;Genetics:
                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-144 <FI2>
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A; Residues: 1-153 <FIN>
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A;Title: Construction and characterization
A;Reference number: A27179; MUID:88056316
A;Accession: A27179
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A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Moslecule type: DNA
A;Residues: 1-145 <MTH>
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A;Note: the authors translated to
C;Genetics:
A;Genetic code: SGC5
C;Superfamily: G surface protein
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Pred. No. 2.3e+02;
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trix; glycoprotein;
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A;Gene: CESP:E01G4.2
A;Map position: 2
A;Introns: 47/3; 69/3; 105/3; 224/3; 400/3
C;Superfamily: Caenorhabditis elegans hypothetical
                                                                                                                                                                    A; Experimental source: C; Genetics:
                                                                                                                                                                                 A; Cross-references: EMBL: 283223; p
A; Experimental source: clone E01G4
                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-434 <WIL>
                                                                                                                                                                                                                                                 A;Status: preliminary; translated
                                                                                                                                                                                                                                                                       A; Reference number: A; Accession: T20400
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                                                                                                                                                                                                                                                                                                                              hypothetical protein E01G4.2 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change C;Accession: T20400 R;Sims, M.
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A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Ittle: Deciphering the biology of Mycobacterium tuberculosis from the complete A;Reference number: A70500; MUID:98295987
A;Accession: A70547
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Experimental C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:Z95558; GB:AL123456; NID:g3261781; PIDN:CAB08976.1; PID:e31686
A;Experimental source: strain H37Rv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA A;Residues; 1-362 <COL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     probable menE - Mycobacterium tuberculosis (strain H37RV) C;Species: Mycobacterium tuberculosis (strain H37RV) C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change C;Accession: A70547
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

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Result
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CIRL_CITFR
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ARTI_YEAST
TKTZ_YEAST
TKTZ_YEA
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090643 gallus gall
p17627 leptospira
p39616 bacillus su
p17053 paramecium
p1383 paramecium
p1383 paramecium
p10459 mus musculu
p10580 zea mays (m
p11445 escherichia
008327 bacillus st
p23182 citrobacter
p55115 caenorhabdi
012630 kluyveromyc
p33254 saccharomyc
p33254 saccharomyc
p33315 saccharomyc
p33315 saccharomyc
p33315 saccharomyc
p36900 rhizobium m
p02443 ovis aries
p02441 ovis aries
p02441 ovis aries
p02442 capra hircu
p30581 aspergillus
p30583 emericella
p82371 lactococcus
p48805 alcaligenes
p70459 mus musculu
p12613 drosophila
p12613 drosophila
p12613 rattus norv
p94669 clostridium
p34751 caenorhabdi
p13222 sus scrofa
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Query Match 85. Best Local Similarity 87. Matches 7; Conservative

85.4%; 87.5%;

0;

1;

0: Gaps

0

Score 41; DB Pred. No. 4.2; 0; Mismatches

DB 1;

Length 491; Indels

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MBL; SSP; nter fam; fam; RINT ROSI rans rans	This SWI between the Euro use by modified entities or send	MEDLINE-95334( Grant C.E., VV "CIRE-3, a new family that is Nucleic Acids -: FUNCTION: OTHER TRAN FAMILY. B: (ISRE) BU' -: SUBCELLUL: SUBLIARITY.	Gallus gallus (Chi Eukaryota; Metazoa Archosauria; Aves; Gallus. NCBL_TaxID=9031; [1] SEQUENCE FROM N.A.	T 1 CHICK CHICK OP064 O9064 O1-NO O1-NO O1-NO O1-NO	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
U20338; AA P15314; 11 Pro; IPRO01 PF00605; ITS; PR00267; TE; PR00601 Cription re IND 14 NCE 491 A	SWISS-PI een the European by non- fied and ties requend an er	Live 2-953: 3, a r 3, a r 4 that 2 Acid 2 Acid 7 Acid 7 Acid 1 CTION 1 ER TI 1 IER T	F 0 F 1	CHICK 3; V-1997 V-1997 V-1997 V-1997	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
AAA 1IF 013 IR 7; 01; reg	the Swiss opean Bioinfo non-profit that and this st d and this st s requires a an email to	MEDLINE-95334365; PubMed-7541908; Grant C.E., Vasa M.Z., Deeley R.G.; Grant C.E., Vasa M.Z., Deeley R.G.; "CIRF-3, a new member of the interf family that is rapidly and transien Nucleic Acids Res. 23:2137-2146(199-1: FUNCTION: MAY ACTIVATE TRANSCRIOTHER TRANSCRIFTIONAL FACTORS, FAMILY. BINDS SPECIFICALLY TO T (ISRE) BUT NOT TO THE IRF-1 BIN (ISRE) BUT NOT TO THE IRF-1.: SUBCELLULAR LOCATION: NUCLEAR.	Gallus gailus (Chicken). Eukaryota; Metazoa; Chor Archosauria; Aves; Neogn Gallus. NCBI_TaxID=9031; [1] [1] SEQUENCE FROM N.A.	STANDARD;  (Rel. 35, Created)  ((Rel. 35, Last seq)  ((Rel. 35, Last ann  REGULATORY FACTOR 3	666.777777
.86995.1; 46; 46; F; 1. INTERNREGECT INTERNREGEC	ry is Insti- ormat ins- tatem lice lice	PubMed-7541908 4.2., Deeley R. Judy and trans 1dly and trans 23:2137-2146( ACTIVATE TRANS ICTIVATE TRANS SPECIFICALLY OF TO THE IRF-1 CATION: NUCLEA ELLONGS TO THE I	ken). Chordata; Neognathae	STANDARD; 1. 35, Creat 1. 35, Last 1. 35, Last LATORY FACTY	150 150 223 2278 279 279 316 481 481
	co tut ics ics tit tit ent ent nse	eel th th and TE TE TE TE TO	dat	RD; Created; Last sec Last and	
CT. CT. TRYPT	y is copyright. It institute of Bioinforn rmatics Institute. Institute. Institute. Institutions as lonatement is not removing a specific and	5; PubMed=7541908; a M.Z., Deeley R.G.; member of the interferon rapidly and transiently es. 23:2137-2146(1995). AY ACTIVATE TRANSCRIPTION ACTIVATE TRANSCRIPTION ACTIVATE TRANSCRIPTION TO THE IRF-1 BINDING LOCATION: NUCLEAR. BELONGS TO THE IRF FAMIL BELONGS TO THE IRF FAMIL BELONGS TO THE IRF FAMIL	a; Cran ae; Gal	PRT; uenc otat	THIH_MOUSE THIH_RAT RB21_CANFA RB21_CANFA RB21_CANFA CAH_METTE EUTJ_ECOLI EUT
uclear protei PENTAD REPEAT BE976D9 CRC64	It is produced informatics and te. There are is long as its cremoved. Usage of (See http://w.ch).	eron regulatory thy induced by ds;  );  PTION BY COMPLEX PROSSIBLY MEMBERS HE IFN-STIMULATED DING SITE PRD-I.  FRAMILY.	fo	.491 AA. e update) iF-3).update)	H_MOUSE 1 CANFA 1 CANFA 1 CANFA 1 ECOLI 1 SALTY 1 SALTY 2 SALTY 2 SALTY 4 CANFA 6 CAFTJA 6 CAFTJA 6 CAFTJA 6 CAFTJA 6 CAFTJA 7 COLCA ALIGNMENTS
	ugh nt an	dSRNA.";  EX FORMATION WITH RS OF THE STAT RED RESPONSE ELEM	uteleos ae; Pha		Q62264 P04145 P55745 P40881 P47277 P47277 P46061 Q47898 Q58430 Q58237 P18165 P21997
vator.	collaboration L outstation ctions on it s in no wa for commercia b.ch/announce	(IRF) ION WITH STAT	eostomi; Phasianinae;		mus musculu rattus norv canis famil methanosarc escherichia salmonella populus tri flavobacter methanococc mycobacteri mus musculu volvox cart

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DHA2_BACSU
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Best Local S
Matches 6
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PHL_LEPIN
          MEDLINE-95020537; PubMed-7934828; Glaser P., Kunst F., Arnaud M., Coud Hullo M.F., Ionescu M., Lubochinsky Presecan E., Santana M., Schneider ERAPOPORT G., Danchin A.; "Bacillus subtilis genome project: c
                                                                                     SEQUENCE FROM N.A.
                                                                                                           Bacillus/Staphylococcus
NCBI_TaxID=1423;
                                                                                                                               Bacillus subtilis.
Bacteria; Firmicutes;
                                                                                                                                                     01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence up
15-JUL-1998 (Rel. 36, Last annotation
PROBABLE ALDEHYDE DEHYDROGENASE YWDH (YWDH OR IPA-58R.
                                                                                                                                                                                                              P39616;
                                                                                                                                                                                                                   DHA2_BACSU
                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                         Hydrolase;
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488 GGCLQDG 494
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01-AUG-1990 (Rel. 15, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
SPHINGOMYELINASE C PRECURSOR (EC 3.1.4.12) (SPHINGOMYELIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PHL_LEPIN P17627;
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Leptospira interrogans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bacteria; Spirochaetales; Leptospiraceae; Leptospira.
NCBI_TaxID=173;
                                                                                                                                                                                                                                                                                                                     Local Similarity es 6; Conserv
                                                                                                                                                                                                                                                                                              2 GGCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: TO BACILLUS SPHINGOMYELINASES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBCELLULAR LOCATION: SECRETED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHOLINE PHOSPHATE
                                                                                                                                                                                                                                                                                                                                                                                                                     x52176; CAA36424.1; 
$22634; $22634.
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556 /
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                                                                                                                                                                                                                    STANDARD;
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genome project: cloning and sequencing of the
                                                                                                                                                                                                                                                                                                                                                                      27
556
63268
                                                                                                                                                                                                                                                                                                                           81.2%;
85.7%;
                                                                                                                Bacillus/Clostridium group; us group; Bacillus.
                                                                                                                                                                                                                                                                                                                                                                       MW;
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Pred. No. 11;
1; Mismatches
                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                                                POTENTIAL.
SPHINGOMYELINASE C.
6D0EACDB9A5CD6FD CRC64;
                      , Coudart M.P., Gonza
Linsky B., Marcelino I
Elder E., Schweizer J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A., de N1js A., Corcione
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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                                                                                                                                                          n update)
(EC 1.2.1.3).
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                                             Gonzales W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene from Leptospira
                                                                                                                                                                                                                                                                                                              0;
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                        J., Wosze
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                                   Moszer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a collaboration
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   97
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RESULT 4
G168_PARPR
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Best Local s
Matches 6
                                                                                        the G surface protein of Paramecum primaurelia.";

J. Mol. Biol. 211:521-535(1990).

-I- FUNCTION: THIS PROTEIN IS THE SURFACE ANTIGEN OR IMMOBILIZATION ANTIGEN OF PARAMECIUM PRIMAURELIA.

-I- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.

-I- MISCELLANEOUS: IT HAS INTERNAL HONOLOGIES AND A HIGHLY PERIODIC CONTAINING B CYSTEINES, EXCEPT FOR FOUR HALF PERIODS. A VARIABLE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G168_PARPR
P17053;
O1-AUG-1990 (
O1-AUG-1990 (
O1-AUG-1990 (
                                             -
                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN=168;
                                                                                                                                                                                                                                                                                                    MEDLINE=90172419; PubMed=2308165;
                                                                                                                                                                                                                                       'Conserved sequences flank variable tandem repeats in the G surface protein of Paramecium primaurelia'';
                                                                                                                                                                                                                                                                                                                                                                                                    Paramecium primaurelia.
Eukaryota; Alveolata; Ciliophora; Oligohymenophorea; Peniculida;
Paramecium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Subtlist; BG10604; ywdH.
InterPro; IPR002086; -.
Pfam; PF00171; aldedh; 1.
PROSITE; PS00070; ALDEHYDE_DEHYDR_CYS; 1.
PROSITE; PS00687; ALDEHYDE_DEHYDR_GLU; 1.
HYDOthetical protein; Oxidoreductas; NAD.
ACT_SITE 21 211 211
ACT_SITE 245 245 BY SIMILARITY.
SEQUENCE 457 AA; 50765 MW; C238D9FD07DFB92A CRC64;
                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=5886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         168G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          kb region from 325 degrees to 333 degrees.";

Mol. Microbiol. 10:371-384(1993).

-!- CATALYTIC ACTIVITY: ALDEHYDE + NAD(+) + H(2)O = ACID + NADH.

-!- SIMILARITY: BELONGS TO THE ALDEHYDE DEHYDROGENASES FAMILY.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .68G SURFACE
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EMBL; Z99123; CAB15822.1;
PJR; S39713; S39713.
HSSP; P11883; IAD3.
(14-32 DEGREES CELSIUS)
SIMILARITY: 98% TO THE
PERIODIC STRUCTURE AND
OF THE PROTEIN.
                                                                 MIDDLE OF THE PROTEIN.
MISCELLANEOUS: EXPRESSION OF G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GGGCVQD 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Rel. 15, Created)
(Rel. 15, Last sequence up
(Rel. 15, Last annotation
E PROTEIN PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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85.78;
                  80% IN T
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Pred. No. 19;
0; Mismatches
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               THE
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                                                              PROTEIN OCCURS AT
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             DOMAIN
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N IN THE MIDDLE
                                                            LOW TEMPERATURES
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G156_PARPE

ID G156_P

AC P1387

AC P156

AC PARALN

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01-JAN-1990
01-AUG-1990
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                entities
or send a
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the European Bioinformatics Institute. There are no restrictions
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modified and this statement is not removed. Usage by and for con
entities requires a license agreement (See http://www.isb-sib.ch/ar
                                                                                 This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for conmodified and this statement is not removed. Usage by and for conmodified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Nucleotide sequence of the Paramecium primaurelia A huge protein with a highly periodic structure.";
J. Mol. Biol. 189:47-60/1986)
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PIR; S09118; S09118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-87060934;
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Paramecium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Paramecium primaurelia
Eukaryota; Alveolata; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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13837;
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                                                                                                                                                                                                                                                                                                                MIDDLE OF THE PROTEIN.
MISCELLANEOUS: EXPRESSION OF G
(14-32 DEGREES CELSIUS).
SIMILARITY: 98% TO THE ALLELIC
PERIODIC STRUCTURE AND 80% IN V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MÓI BIOI. 189:47-60(1986).

FUNCTION: THIS PROTEIN IS THE SURFACE ANTIGEN OR IMMOBILIZATION ANTIGEN OF PARAMECIUM PRIMAURRLIA.

SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.

MISCELLANEOUS: IT HAS INVERNAL HOMOLOGIES AND A HIGHLY PERIODIC STRUCTURE WITH 37 PERIODS OF ABOUT 75 RESIDUES, EACH PERIOD CONTAINING 8 CYSTEINES, EXCEPT FOR FOUR HALF PERIODS. A VARIABLY PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES 4 ALMOST IDENTICAL PERIODS IN THE PART OF 475 RESIDUES COMPRISES A PART OF 475 RESIDUES COM
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6; Conserv
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                                requires a license agreement (See http://www.isb-sib.n email to license@isb-sib.ch).
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E PROTEIN P
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PRECURSOR.
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37 x 75 AA APPROXIMATE REPEATS.
VARIABLE DOWAIN, COMPRISES 4 AI
IDENTICAL REPEATS.
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SIGNAL
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EMBL; A12923; CAA01069.1;
PIR; S27481; S27481.
PIR; A45737; A45737.
                                                                                                                                                                                                                                                                    entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                           use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                      the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Purification and properties of an Arthrobacter oxydans P52 carbamate hydrolase specific for the herbicide phenmedipham and nucleotide sequence of the corresponding gene.";

J. Bacteriol. 174:6600-6607(1992).

-I- FUNCTION: MAY DECRADE THE PHENYLCARBAMATE HERBICIDES PHENMEDIPHAM AND DESMEDIPHAM COMETABOLICALLY BY HYDROLYZING THEIR CENTRAL CARBAMATE LINKAGES. CONVEYS RESISTANCE TO THE HERBICIDE
                                                                                                                                                                                                                                                                                                                                                                         between
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PIR; A23475; A23475.
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                                                                                                                                                                                                                                                                                                                     SWISS-PROT entry is copyright. It is produced the Eleven the Swiss Institute of Bioinformatics and the Eleven the Bioinformatics Institute. There are no rest European Bioinformatics Institutes as long as its content by an
                                                                                                                                                                                                                                                                                                                                                                                                                               SUBUNIT: MONOMER. SIMILARITY: BELONGS
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3.1.1.-) (PHENYLCARBAMATE HYDROLASE).
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37 X 75 AA APPROXIMATE REPEATS.
88% TO PARAMECIUM TETRAURELIA A
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                                                                                                                                                                                                                                                                                                             Usage
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2 GGCVQDG 8

15

GGCLEDG 21

COLLAGEN ALPHA 1(I)

(Rel.) (Rel.) (Rel.

STANDARD;

Matches Query Match Best Local

Local

Similarity 5; Conserv

75.0%; 71.4%;

Conservative

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SEQUENCE OF 1311-1453 FROM N.A.

MEDLINE-80134546; PubMed-6997088;
Showalter A.M., Pesciotta D.M., Eikenberry E.F.,
Pastan I., Decrombrugghe B., Fietzek P.P., Olsen
"Nucleotide sequence of a collagen cDNA-fragment
carboxyl end of pro alpha 1(I)-chains.";
FEBS Lett. 111:61-65(1980).

-1- FUNCTION: TYPE I COLLAGEN IS A MEMBER OF GROU
                                                                                                                                                                                                                                                         MEDLINE-81160715; PubMed-6927845;
Fuller F., Boedtker H.;
"Sequence determination and analysis of the 3' region of chicken pro-
alpha 1(I) and pro-alpha 2(I) collagen messenger ribonucleic acids
including the carboxy-terminal propeptide sequences.";
Blochemistry 20:996-1006(1981).
                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-72243016; PubMed=5047697;
Eyre D.R., Glimcher M.J.;
"Evidence for a previously undetected sequence at the of the alpha 1 chain of chicken bone collagen.";
Biochem. Biophys. Res. Commun. 48:720-726(1972).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Amino acid sequence of chick skin collagen alpha 1(I)-CB8 and complete primary structure of the helical portion of the chick collagen alpha 1(I) chain.";
Biochemistry 21:2048-2055(1982).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 152-1187
MEDLINE-82231995; PubMed-7093229;
Highberger J.H., Corbett C., Dixit S.N.,
Kang A.H., Gross J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 1-144 FROM N.A.
SEQUENCE OF 1-144 FROM N.A.
MEDILING-88007542; PubMed-2820966;
Finer M.H., Aho S., Gerstenfeld L.C.,
"Unusual DNA sequences located within
first intron of the chicken pro-alpha
J., Biol. Chem. 262:13323-13332(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 1-153 FROM N.A.

MEDLINE-88056316; PubMed-3678834;

Finer M.H., Boedtker H., Doty P.;

"Construction and characterization of cDNA clones encoding the chicken pro alpha 1(I) collagen mRNA.";

Gene 56:71-78(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Coura..
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
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12, Last sequence update)
38, Last annotation update)
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Pred. No.
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the promoter region and
1(I) collagen gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yu W., Seyer J.M.,
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                                                                                                      GROUP I COLLAGEN
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PCK5_MOUSE STANDARD;

AC 04592; 062040;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-CT-2000 (Rel. 40, Last sequence update)
DT 01-CCT-2000 (Rel. 40, Last annotation update)
DE PROPROTEIN CONVERTASE SUBTILISIN/KEXIN TYPE 5 PRECURSOR (EC 3.4.21.-)
(CONVERTASE PC5) (SUBTILISIN/KEXIN-LIKE PROTEASE PC5)

"CONVERTASE PC5) (PC6) (SUBTILISIN-LIKE PROPROTEIN CONVERTASE 6)
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Best Local S
Matches 6
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DR EMBL, M17838 AAA48704.1; JOINED

DR EMBL; W10401; CAA23695.1;

DR EMBL; W10571; AAA48672.1;

DR EMBL; M10571; AAA48672.1;

DR PIR, A27179; A27179

DR PIR, A27367; A29367

DR InterPro; IPR000085;

DR InterPro; IPR000085;

DR InterPro; IPR000087;

PR InterPro; IPR000087;

DR InterPro; IPR000087;

DR InterPro; IPR000087;

DR Pfam; PF01410; COLFT; 1

DR Pfam; PF01391; Collagen; 18.

PFAM; PF00393; vc; 1.

PROSITE; PS01208; VWFC; 1.

WEXTAGE11ular Matrix; Connective tissue; Repeat; Hydroxylation; TROMAND; 1

BROWN Glycoprotein; Collagen; Signal.
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CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -i- PTM: PROLINES AT THE THIRD POSITION OF UNIT (G-X-Y) ARE HYDROXYLATED IN SOME (-i- SIMILARITY: CONTAINS 1 VWFC DOMAIN.
                                                                                                                                                                                                                                                                                                             GSCVQDG
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85.7%;
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HYDROXYLATION (POTENTIAL).
HYDROXYLATION (POTENTIAL).
HYDROXYLATION (POTENTIAL).
HYDROXYLATION (ONLY 3-HYDROXYPRO AND THE ONLY HYDROXYLATION POSITION X (IN THE G-X-Y UNIT IN THE ALPHA 1(I) CHAIN)).

F -> L (IN REF. 5).

O -> H (IN REF. 5).

O MW; 3BC6152134271F4D CRC64;
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Pred. No. 83;
0; Mismatches
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LPHA 1(I) CHAIN.
PROPERTIDE.
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DT 21-JUL-1999 ()
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DT 101-OCT-1889 ()
DT 101-OCT-1889 ()
DT 101-OCT-1899 ()
DT 21-JUL-1999 ()
DT 21-JUL-199

SEQUENCE OF 981-1453 FROM MEDLINE-81160715; Pubmed-6

COLLAGEN)

SEQUENCE OF 1200-1205

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"Murine subtilistin-like proteinase SPC6 is expressed during embryonic implantation, somitogenesis, and skeletal formation.";

Dev. Genet. 21:75-81(1997).

10-ev. Genet. 21:75-81(1997).

11-FUNCTION: LIKELY TO REBPRESENT A WIDESPREAD ENDOPROTEASE ACTIVITY WITHIN THE CONSTITUTIVE AND REGULATED SECRETORY PATHWAY. CAPABLE OF CLEAVAGE AT THE RX(K/R)R CONSENSUS MOTIE. MAY BE RESPONSIBLE FOR THE MATURATION OF GASTROINTESTINAL PEPTIDES. MAY BE INVOLVED IN THE CELULLAR PROLIFERATION OF ADRENAL CORTEX VIA THE ACTIVATION OF GROWTH FACTORS.

1-CATALTYTIC ACTIVITY: RELEASE OF MATURE PROTEINS FROM THEIR CONTENT OF THE RESPONSIBLE FOR THE MATURE PROTEINS FROM THEIR CATALTYTIC ACTIVITY: RELEASE OF MATURE PROTEINS FROM THEIR CONTENT OF THE MATURE PROTEINS FROM THEIR CATALTYTIC ACTIVITY: RELEASE OF MATURE PROTEINS FROM THEIR CATALTYTIC ACTIVITY: RELEASE OF MATURE PROTEINS FROM THEIR CATALTYTIC MATURE PROTEINS FROM THE CATALTYTIC MATURE PROTEINS FROM THE PROTE
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Bendayan M., Seidah N.G.;
"The isoforms of proprotein convertase
subcellular compartments.";
J. Cell Biol. 135:1261-1275(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Identification and functional expression of a new member of the mammalian Kex2-like processing endoprotease family: its striking structural similarity to PACE4.";
J. Biochem. 113:132-135(1993).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "SPC4, SPC6, and the novel protease SPC7 morphogenetic proteins at distinct sites J. Cell Biol. 134:181-191(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                candidate proprotein convertase
nonendocrine cells.";
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[3]
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MEDLINE-97103178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lusson J., Vieau D., Hamelin J., Day R., Chretien M., Seidah N. "CDNA structure of the mouse and rat subtilisin/kexin-like PC5: candidate proprotein convertase expressed in endocrine and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-93342056;
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Nakayama K.;
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ALTERNATIVE PRODUCTS: AT LEAST 2 ISOFORMS; PC5B/LONG (SHOWN HERE AND PC5A/SHORT; ARE PRODUCED BY ALTERNATIVE SPLICING.
TISSUE SPECIFICITY: PC5A IS EXPRESSED IN MOST TISSUES BUT IS MOS ABUNDANT IN THE INTESTINE AND ADRENALS. PC5B IS EXPRESSED IN THE INTESTINE, ADDRENALS AND LUNG BUT NOT IN THE BRAIN.
DEVELOPMENTAL STAGE: WEAKLY EXPRESSED THROUGHOUT THE EMBRYO, EXCEPT IN THE DEVELOPING NERVOUS SYSTEM, THE RIBS AND THE LIVER, BUT MARKEDLY UPREGULATED AT DISCRETE SITES DURING DEVELOPMENT. A
                                                                                                                                                                                                               PROPROTEINS BY CLEAVAGE OF ARG-XAA-YAA-ARG-1-ZAA BONDS, WHER CAN BE ANY ANINO ACID AND YAA IS ARG OR LYS.
SUBCELLULAR LOCATION: PC5A IS SECRETED THROUGH THE REGULATED SECRETORY PARHWAY. PC5B IS A TYPE I MEMBRANE PROTEIN LOCALIZ A PARANUCLEAR POST-GOLGI NETWORK COMPARTMENT IN COMMUNICATIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CG, a Kex2-like processing endoprotease.";
Lett. 327:165-171(1993).
                                                                                                                                                                                                EARLY ENDOSOMES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PubMed-8341687;
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E6.5, PROMINENT EXPRESSION OBSERVED IN DIFFERENCIATED DECIDUA. AT E7.5, INTENSE EXPRESSION IN EXTRABBRYONIC ENDODERM, AMNOIN AND NASCENT MESODERM. AT 8.5, ABUNDANT EXPRESSION IN SOMITES AND YOLK SAC FOLLOWED BY A CONFINATION TO DERMAMYOTOME COMPARTMENT. BETWEEN E9.5 AND E11.5, ABUNDANT EXPRESSION IN HER LIMES IS CONFINED TO THE CONDENSING MESENCHYM SURROUNDING THE CARTILAGE. AT THIS STAGE, STRONG EXPRESSION ALSO DETECTED IN VERTEBRAL AND FACIAL CARTILAGE PRIMORDIA AND IN THE MUSCLE OF THE TONGUE. AT E16.5, ABUNDANT EXPRESSION IN EPITHELIAL CELLS OF THE INTESTINAL VILLI. ISOFORM B OCCUR AT E12.5.

-I. DOMAIN: THE PROPERTIDE DOMAIN ACTS AS AN INTRAMOLECULAR CHAPERONE ASSISTING THE FOLDING OF THE ZYMOGEN WITHIN THE ENDOPLASMIC
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RETICULUM

DOMAIN: AC 1 AND AC 2 (CLUSTERS OF ACIDIC AMINO ACIDS) SORTING INFORMATION. AC 1 DIRECTS TGN LOCALIZATION AND WITH THE TGN SORTING PROTEIN PACS-1. CONTAIN

SIMILARITY: BELONGS TO SUBTILASE FAMILY. PEPTIDASE FAMILY ; 8S ALSO KNOWN AS

SIMILARITY: CONTAINS 1 HOMO DOMAIN

modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sibor send an email to license@isb-sib.ch). European SWISS-PROT entry is copyright. It en the Swiss Institute of Bioinfo non-profit institutions as long Bioinformatics Institute. Bioinformatics is produced through a commatics and the EMBL There are no restrictions ong as its content is in a collaboration - MBL outstation for .ch/announce/ outstation in no way commercial

HSSF,
MEROPS; Suc.
MGD; MGI:97515; ...
MGD; MGI:97516; ...
MGD; MG EMBL; D17583; BAA04507.1; EMBL; D12619; BAA02143.1; EMBL; D144932; AAA74636.1; PIR; JX0248; JX0248.
PIR; A48225; A48225. HSSP; Q99405; 1MPT MEROPS: ~~ 464 638 1825 1856 1769 1790 1768 1789 1877 452 602 1753 1844 1877 113 523 173 214 388 388 383 667 754 CLEAVAGE (AUTO-) (BY SCELL ATTACHMENT SITE (CHARGE RELAY SYSTEM (ECHARGE RELAY SYSTEM (ECHARGE RELAY SYSTEM (ECHARGE RELAY SYSTEM) N-LINKED
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Paillard M., Sederoff
"Nucleotide sequence c
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P10580;
01-JUL-1989
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01-JUL-1989 (Rel. 11, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
HYPOTHETICAL 29 KDA PROTEIN IN MITOCHONDRIAL S-1 DNA (URF 4)...
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DB; 69620; -
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5; Conserv
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256 AA; 29338 MW; BlD6DB31E402D;
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; Poales; Poaceae; PACC clade; Panicoideae;
                                                                                                                 Score 35; DB Pred. No. 25; 2; Mismatches
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S-1 mitochondrial
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Pred. No. 1.1e+02;
0; Mismatches 1
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MW; EC850E2DF20EA1C3 CRC64;
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X MEDLINE-99322417; PubMed=10393305;
A Gil F., Ramon-Maiques S., Marina A., Fita I., Rubio V.;
The Common Maiques S., Marina A., Fita I., Rubio V.;
The Common Maiques S., Marina A., Fita I., Rubio V.;
The Common Maiques S., Marina A., Fita I., Rubio V.;
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The Common Maiques S., Marina A., Fita I., Rubio V.;
The Common Maiques S., Marina A., Fita I., Rubio V.;
The Common Maiques S., 
                                                                                          Query Match
Best Local ;
                                                                          Matches
                                                                                                                                                  Ecogene; EG10064; argB.
InterPro; IPR001048; -
Pfam; PF00696; aakinase; 1.
Arginine biosynthesis; Transferase; Kinase.
SEQUENCE 258 AA; 27159 MW; 8B916B8CBC143738 CRC64;
                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                        EMBL; M21446; AAA23478.1; --
EMBL; U00006; AAC43055.1; --
EMBL; AE000470; AAC76941.1;
PIR; JT0331; KIECAE.
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P11445;
01-OCT-1989 (Rel. 12, Created)
01-OCT-1989 (Rel. 12, Last seque
30-MAY-2000 (Rel. 39, Last annot
ACETYLGLUTAMATE KINASE (EC 2.7.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN=K12 / MG1655,
MEDLINE=94083392; PubMed=8265357;
MEDLINE=9408392; PubMed=8265357;
  43
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MEDLINE-89121510; PubMed-2851495;
Parsot C., Boyen A., Cohen G.N., Glansdorff N.;

"Nucleotide sequence of Escherichia coli argB and argC genes:
comparison of N-acetylglutamate kinase and N-acetylglutamate-gamma-
semialdehyde dehydrogenase with homologous and analogous enzymes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Analysis of the Escherichia coli genome. region from 89.2 to 92.8 minutes."; Nucleic Acids Res. 21:5408-5417(1993).
                  1 GGGCVQD 7
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Escherichia.
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AAC43065.1; -.
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85.7%;
                                                                                Score 35;
Pred. No.
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2.7.2.8) (NAG KINASE) (AGK) (N-ACETYL-L-
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                                                             Mismatches
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Best Local Similarity
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01-NOV-1997 (Rel.
30-MAY-2000 (Rel.
                                                                                     Hemolysis.
SEQUENCE
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Bacteria; Firmicutes; Bacillus/Clostridium group;
Bacillus/Staphylococcus group; Bacillus.
                                                                                                                                                                                                                                                                                                                                          Citrobacter
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O08327;
                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                              Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Takata H., Takaha T., Okada S., Takagi M., Imanaka T.;
"Characterization of a gene cluster for glycogen biosynthesis
heterotetrameric ADP-glucose pyrophosphorylase from Bacillus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. STRAIN-TRBE14;
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Similarity 75.
6; Conservative
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343 AA; 38
                                                                                     618 AA;
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RESULT 14
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01-OCT-1996 (Rel. 3
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HYPOTHETICAL ZINC N
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15-JUL-1998
30-MAY-2000
                                                                                                                                                                                                                                                                            Hypothetical I
METAL 29
ACT_SITE 29
METAL 29
Kluyveromyces lactis (Yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycetales; Saccharomycetaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                         the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/an or send an email to license@isb-sib.ch).
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                                            TRANSKETOLASE
                                                                                      Q12630;
                                                                                                 TKT1_KLULA
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HSSP; P07584; 1IAD.
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PROSITE; PS00142; ZINC_PROTEASE; 1.
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SIMILARITY: BELONGS TO PEPTLDASE FAMILY M12A (ZINC
METALLOPROTEASE); ALSO KNOWN AS THE ASTACIN SUBFAMILY.
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C 2.2.1.1) (TK).
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62.5%;
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ZINC (CATALYTIC). (BY SIMILARITY).

BY SIMILARITY.

ZINC (CATALYTIC) (BY SIMILARITY).

ZINC (CATALYTIC) (BY SIMILARITY).

STANC (CATALYTIC) (BY SIMILARITY).
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Caenorhabd1tis.
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 Saccharomycotina; Saccharomycetes; setaceae; Kluyveromyces.
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RESULT 15
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AC P23254
DT TKT2_YEAST
AC P23254
DT 01-FEB
DT 15-JUL
DE TRANSK
GN TKL1 0
OS Saccha
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OC Saccha
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P23254;
01-NOV-1991 (Rel. 20, Created)
01-FEB-1996 (Rel. 33, Last sequence upda
15-JUL-1998 (Rel. 36, Last annotation up
TRANSKETOLASE 1 (EC 2.2.1.1) (TK 1).
TKL1 OR YPR074C OR YP9499.29C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                MEDLINE-94043273; PubMed-8226984; Sundstroem M., Lindqvist Y., Schneider G., Hellman U., Ron "Yeast TKL1 gene encodes a transketolase that is required efficient glycolysis and biosynthesis of arcmatic amino ac J. Biol. Chem. 268:24346-24352(1993).
SEQUENCE FROM N.A.
STRAIN=S288C / AB9
                                                                                                                                                                SEQUENCE FROM N.A., AND PARTIAL SEQUENCE. MEDLINE-92144611; Pubmed-1737042; Fletcher T.S., Kwee I.L., Nakada T., Larg "DNA sequence of the yeast transketolase Biochemistry 31:1892-1896(1992).
                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                         Saccharomyces cerevisiae (Baker's yeast).

Bukaryota; Fungi, Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00456; transketolase; 1.
PROSITE; PS00801; TRANSKETOLASE_1;
PROSITE; PS00802; TRANSKETOLASE_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jacoby J.J., Helisch J.J.;

"Analysis of a transketolase gene from kluyveromyces lactis that the yeast enzymes are more related to transketolases of prokaryotto origins than to those of higher eukaryotes.";

Curr. Genet. 31:15-21(1997).

"I CATALYTIC ACTIVITY: SEDGHEPTULOSE 7-PHOSPHATE + D-GLYCER 3-PHOSPHATE - D-RIBOSE 5-PHOSPHATE + D-XYLULOSE 5-PHOSPHATE."

"I COPACTOR: THIAMINE PYROPHOSPHATE."

"I SUBUNIT: HOMODIMER (BY SIMILARITY).

"I SIMILARITY: BELONGS TO THE TRANSKETOLASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               156 GDGCLQEG 163
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Pfam; PF00456; transket
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MEDLINE=97153463; PubMed=9000376;
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79 AA; 73703 MW; BC5F3CF61A78CD4A CRC64;
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                                                            EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                              EUR. J. BİOChem. 233:750-755(1995).

1- CATALYTIC ACTIVITY: SEDOREPTULOSE 7-PHOSPHATE +
3-PHOSPHATE D-RIBOSE 5-PHOSPHATE + D-XYLULOSE
-1- COFACTOR: THIAMINE PYROPHOSPHATE. REQUIRES MAGNE
CATALYTIC ACTIVITY
                                                                                                                                                                                                                                                                                                         and catalysis.",
Eur. J. Block-
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                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=96085137; PubMeWikner ~
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                MUTAGENESIS OF HIS, AND X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS).
MEDLINE-98062276; PubMed-9398292;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nikkola M., Lindqvist Y., Schneider G.;
"Refined structure of transketolase from Saccharomyces cerevisiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS).
MEDLINE-92331588; pubMed-1628611;
Lindqvist Y., Schneider G., Ermler U., Sundstroem M.;
"Three-dimensional structure of transketolase, a thiamine diphosphate dependent enzyme, at 2.5-A resolution.";
EMBO J. 11:2373-2379(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS).
MEDLINE-94231561; PubMed-8176731;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=SAB8C / AB972;

Johnston M., Andrews S., Brinkman R., Cooper J., Ding H., Du Favello A., Fulton L., Gattung S., Greco T., Kirsten J., Kuc Hallsworth K., Hawkins J., Hillier L., Jier M., Johnson D., Johnston L., Langston Y., Latreille P., Lef T., Mardis E., Me Miller N., Nhan M., Pauley A., Peluso D., Rifken L., Riles L Taich A., Trevaskis E., Vignati D., Wilcox L., Wohldman P., Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-92253546; PubMed-18
Nixon P.F., Duggleby R.G.,
"The N-terminal amino acid
             L; M63302; AAA35168.1;
LL; X73224; CAA51693.1;
L2; Z749219; CAA69191.1;
L1; Z71255; CAA94982.1;
L1; U51033; AAB68125.1;
L4; A42084; XJBYTK,
L4; A420867; S21067.
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                                           2.2.2.2.2
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e EMBL/GenBank/DDBJ databases.
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Search completed: June 13, 2001, 14:30:36 Job time: 526 sec
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Best Local Similarity 62.5
Matches 5; Conservative
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PDB: 1MC; 30-NOV-94.

PDB: 1MC; 12-FEB-97.

PDB: 1AY0; 13-MAY-98.

SMISS-ZDPAGE: P23254; YEAST.

YEPD: 4776; TKL1.

InterPro: ITR000360; -.

Pfam; PF00456; transketolase; 1.

PROSITE: PS00801; TRANSKETOLASE_1; 1.

Transferase; Thiamine pyrophosphate; Magnesium; Multigene family;
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PROBABLE.

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MA -> RS (IN REF. 1).

WSOMMUPTINDEMYINDREVILSINGHAVALLYSM -> GESN
AHEPNOPKTGSTEIDLSCLTVTRSLCCIY

(IN REF. 1).

142

AATYNKPG -> DMPLTTSRA (IN REF. 1).

233

AQA -> RQR (IN REF. 1).

236

LIKMTTTIGYGSLHA -> FDQNDHNHWLRFLRS
(IN REF. 1).

382

L -> LVLPTL (IN REF. 1).

395

D -> S (IN REF. 1).

537

RQNLPOLEGSS -> PDKTCHNWKVAL (IN REF. 1).

538

SGKAPEVFKFFGFTDEGVAERAQKTIAFYKGDKLISPLKKA
F -> PVRHOKSSSSSVSPQKVLLKELKRPLHSIRVTS

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2: sp_bacteria
3: sp_fungl:*
4: sp_human:*
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5: sp_mammal:*
7: sp_mhc:*
8: sp_organe1:
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Q67656 garlic late
Q67553 garlic late
Q67591 methanobact
Q9051 ks schistocerc
Q94710 paramecium
Q76973 paramecium
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Q99227 homo sapien
Q99257 drosophila
Q77753 canis famil
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Q41801 zea mays (m
Q9vzk2 drosophila
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Q9pk45 chlamydia m
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MEDLINE=92078225; PubMed=1744138;

Wah H.D., Upholt W.B.;

"Type II collagen mRNA containing an alternatively spliced exon predominates in the chick limb prior to chondrogenesis.";

J. Biol. Chem. 266:23446-23452(1991).

EMBL; M74435; AAA48714.1; -
                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-UNV-1906 (TrEMBLrel. 14, Last annotation update)
01-UN-2000 (TrEMBLrel. 14, Last annotation update)
COLLAGEN TYPE 2 PRECURSOR (FRAGMENT).
Gallus gallus (Chicken).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                 PFAM; PF00093; vwc; 1.
PFAM; PF01391; Collagen; 1.
PROSITE; PS01208; VWFC; 1.
                                                                                                                                                                                                                      INTERPRO; IPR000087; -. INTERPRO; IPR001007; -.
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2 GGCVQDG 8
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35 GGCVQDG 41
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206
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20793 MW;
                                                   87.5%; Score 42; DB 13; Length 206; 100.0%; Pred. No. 3; Live 0; Mismatches 0; Indels
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COLLAGEN TYPE 2.
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Read T.D., Brunham R., Shen C., Gill S.R., Heidelberg J.F.,
Hickey E.K., Peterson J., Umayam L.A., Utterback T., Berry H.
Bass S., Linher K., Weldman J., Khouri H., Craven B., Bowmar
Dodson R., Gwinn M., Neison W., DeBoy R., Kolonay J., McClar
Salzberg S.L., Eisen J., Fraser C.M.;
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AE002331; AAF39457.1;
TIGR; TC0628;
                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

STRAIN-MODEN / NIGG;

MEDLINE=20150255; PubMed=10684935;

MEDLINE=20150255; PubMed=10684935;

MILTO, Brunham R.C., Shen C., Gill S.R., Heidelberg J.F.,

White O., Hickey E.K., Peterson J., Utterback T., Berry K., Bass S.,

Linher K., Weidman J., Khouri H., Craven B., Bowman C., Dodson R.,

Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G., Salzberg S.L.,

"Genome Sequences of Chlamydia trachomatis MoPn and Chlamydia

Nucleic Acids Res. 28:1397-1406(2000)
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Q9PK45;
01-OCT-2000
01-OCT-2000
01-OCT-2000
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Bacteria; Chlamydiales;
NCBI_TaxID=83560;
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Science 282:754-759(1998);
EMBL; AE001308; AAC67944.1;
SEQUENCE 196 AA; 21978 MW; E0B6CFFD52F93073 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-D/UW-3/CX;
MEDLINE-99000809; PubMed-9784136;
Stephens R.S., Kalman S., Lammel C.
Mitchell W.P., Olinger L., Tatusov
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                              Nucleic Acids Res. 23:3403-3410(1995).

EMBL; X79935; CAA55286 1; -

MENDEL; 11281; Zeama;1274;11281.

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SEQUENCE 302 AA; 31197 MW; B7826F2
                                                                                                      SEQUENCE FROM N.A.
STRAIN-H84; TISSUB-LEAF;
MEDLINE-96032831; PubMed-7567449;
                                                                                                                                                                                                 Eukaryota; Viridiplantae; |
Magnoliophyta; Liliopsida;
NCBI_TaxID=4577;
                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=H84; TISSUE=LEAF;
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FACTOR OF THE PONBARE, STRAIN-CV. NIPPONBARE, Sasaki T., Matsumoto T., Yamamoto K.; Sasaki T., Matsumoto T., Yamamoto K.; Poryza sativa nipponbare(GA3) genomic DNA, chromosome 1, clone:P0489A01.*; Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AP002484; BAA99520.1; SPOIENCE 250 AA; 28494 MW; 27574C02BA14BCF3 CRC64;
                                                                                                                                                     Submitted
                                                                                                                                                                Shuichi Y
                                                                                                                                                                                                                               Zea mays (Maize).
                                                                                                                                                                                                                                      DOF3 GENE (FRAGMENT).
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Matches
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01-OCT-2000 (
P0489A01.11 P
P0489A01.11.
                                                                                             novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oryza sativa (Rice).
Eukaryota; Viridiplantae; I
Magnoliophyta; Liliopsida;
NCBI_TaxID=4530;
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                                                                             DNA-binding domain that may form a single zinc finger
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                                                                                                                                        (JUN-1994) to the EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                       PRELIMINARY;
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 79.2%;
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75.08;
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 Score
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                       B7826F297211B9AD CRC64;
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Pred. No. 19;
1; Mismatches
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38;
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O1-MAY-2000 (TrEMBLrel. ]
O1-MAY-2000 (TrEMBLrel. ]
O1-OCT-2000 (TrEMBLrel. ]
SCRT PROTEIN (SCRATCH).
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Galle R., George R.A., Harris N.L., Hoskins R.A., Evans-Holm M., Houston K.A., Hummasti S.R., Kim E., Li P., Moshrefi M., Pacleb J.M., Park S., Sequeira A., Sethi H., Snir E., Svirskas R.R., Weinburg T., Celniker S.E.;
                                                                                Rubin G.M., Wan K.H., Harvey D., Lewis S.E., Brokstein P., Tsang Agbayani A., Arcaina T.T., Baxter E., Blazej R.G., Butenhoff C., Champe M., Chavez C., Chew M., Doyle C.M., Farfan D.E., Frise E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9VZK2
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RESULT Q27167
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Roark M., Sturtevant M.A., Emery J., Va
"scratch, a pan-neural gene encoding a
snail, promotes neuronal development.";
Genes Dev. 9:2384-2398(1995).
EMBL: U36477; AAA91035.1; -.
HSSP: P25490; JUBD.
FLYBASE; FBgn0004880; scrt.
INTERPRO; IPR000822; --
INTERPRO; IPR000822; --
INTERPRO; FFGN00622; --
INTERPRO; IPR000822; --
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01-NOV-1996
01-OCT-2000
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01-NOV-1996
01-MAY-2000
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PROSITE; PS00028; ZINC_FINGER_C2H2;
Zinc-finger; Metal-binding; DNA-bind
SEQUENCE 664 AA; 72569 MW; 687F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Full length Drosophila melanogaster cDNA sequence."; Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases. EMBL; AE003479; AAF47819.1; -. EMBL; AF145627; AAD38602.1; -. EMBL; P25499; IUBD.
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PROSITE; PS0028; ZINC_FINGER_C2H2;
ZINC_finger; Metal-binding; DNA-binc
SEQUENCE 653 AA; 70774 MW; 15C2;
                                                  51B TYPE
                                                                                                                                              Q27167;
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Ephydroidea;
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                              Paramecium
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nes 6; Conserv
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                                                  SURFACE PROTEIN.
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Neoptera, Endopterygota, Diptera, Brachyco
a, Drosophilidae, Drosophila.
                                                                     5 (TrEMBLrel. 01, 5 (TrEMBLrel. 01, 01) (TrEMBLrel. 13,
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    Ciliophora; Oligohymenophorea; Peniculida;
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TRANSCRIPTION FACTOR.
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W; 15C27EE93F3FF45D CRC64;
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Pred. No. 50;
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01-NOV-1996 (TIEMBLIEL 01, C.
01-NOV-1996 (TIEMBLIEL 01, L.
01-OCT-2000 (TIEMBLIEL 15, L.
12 KDA PROTEIN.
9811ic latent virus,
                                                                                                                                                                                                                                                                                                                                                                  Jin Nam C., Sang Ik S., Jong Tae S., Jong Seob Submitted (JAN-1996) to the EMBL/GenBank/DDBJ d INTERPRO; IPRO01896; - PFAM; PF01307; Plant_vir_prot; 1.

SEQUENCE 110 AA; 11831 MW: ORBETC116710670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-WONJU;
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NCBI_TaxID=12458;
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INTERPRO; IPRO01680; ...
INTERPRO; IPRO01680; ...
INTERPRO; IPRO02895; ...
PFAM; PF01508; PARAMECLUM_SA; 28.
PROSITE; PS00241; RECEPTOR_CYTOKINES_1; UNKNOWN_1.
PROSITE; PS00678; WD_REPEATS; UNKNOWN_1.
SEQUENCE 2395 AA; 246430 MW; 8632E022649B2D61 (
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EMBL; U07603; AAA81947.1;
EMBL; L04795; AAA16710.1;
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Scott J., Leeck C., Forney J.;
"Analysis of the micronuclear B type surface protein gene
Paramecium tetraurelia.";
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NCBI_TaxID=5888;
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RC STRAIN-DELTA H;

RX MEDILINE-98037514; PubMed-9371463;

RA Aldredge T., Bashirzadeh R., Blakely D., Cook R., Gilbert K.,

RA Aldredge T., Bashirzadeh R., Blakely D., Cook R., Gilbert K.,

RA Harrison D., Hoang L., Keagle P., Lumm W., Pothier B., Qiu D.,

AR Spadafora R., Vicare R., Wang Y., Wierbowski J., Gibson R.,

Jiwani N., Caruso A., Bush D., Safer H., Patwell D., Prabhakar S.,

RA McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M.,

"Complete genome sequence of Methanobacterium thermoautotrophicum

"Complete genome sequence of Methanobacterium thermoautotrophicum

"L Bacteriol 179:7135-7155 (1997).

REMBL, AE000874; AAB85506.1;

"PAAM. DFN1761. NR DALASTILLE.
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Endonuclease.
SEQUENCE 279 AA; 31032 MW; 33C
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027091;
01-JAN-1998
01-JAN-1998
01-MAY-2000
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Archaea; Euryarchaeota; Methanobacteriales; Methanobacteriaceae;
Methanobacterium.
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PFAM; PF01307; Plant_vir_prot;
PRODOM; PD001561; -; 1.
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"Differentiation among garlic viruses in mixed infections PCR procedures and direct tissue blotting immunoassays.";
Phytopathology 86:253-259(1996).
EMBL; D11161; BAA011933.1; -
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11917 MW;
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71.48;
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09U5K8; 01-MAY-2000 (TrembLrel. 13, 01-OCT-2000 (TrembLrel. 15, 01-OCT-2000 (TrembLrel. 15, GROUP 3 HOMEODOMAIN PROTEIN.

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Best Local
Matches
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PRINTS; PRO0031; HTHREPRESSR.
PROSITE; PS00027; HOMEOBOX_1; 1.
PROSITE; PS50071; HOMEOBOX_2; 1.
Homeobox; DNA-binding; Nuclear prosequence 379 AA; 41448 MW; 959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 submitted (NOV-1999) to the EMBL; X92654; CAB61208.1; -- HSSP; PO2833; ISAN.
                                                                                                                                                                                                                                                             variable surface proteins from Paramecium tetraurelia. J. Mol. Biol. 222:835-841(1991). EMBL; M65163; AAA61739.1; -.
                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE-92106337; PubMed-1762150;
Nielsen E., You Y., Forney J.;
"Cysteine residue periodicity is a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q94710
Q94710;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schistocerca gregaria (Desert locust).
Eukaryota; Metazoa; Arthropoda; Tracheta; Hexapod
Pterygota; Neoptera; Orthopteroidea; Orthoptera; C
Acridomorpha; Acridoidea; Acrididae; Schistocerca.
                                                                                                                                            PFAM; PF01508; Paramecium_SA; 33.
PROSITE; PS00678; WD_REPEATS; UNKNOWN_1.
SEQUENCE 2717 AA; 280014 MW; 0A271E270868CAA9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-FEB-1997 (TrEMBLrel.
01-FEB-1997 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
51A SURFACE PROTEIN.
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INTERPRO: IPRO01356; -.
PFAM; PF00046; homeobox;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Paramecium.
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Eukaryota; Alveolata; Ciliophora; Oligohymenophorea; Peniculida;
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                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=5888;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190
                                                                                                                                                                                                                   NTERPRO; IPR001680; -
NTERPRO; IPR002895; -
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GGGCVQDG
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dorf B., Schroeder
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75.08;
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                                         Score 37; DB Pred. No. 3e+(0; Mismatches
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95950C5B494D19A8 CRC64;
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3e+02;
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ptera; Caelifera;
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                                                                                     Length 2717;
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RESULT
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Matches 6
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Q99227;
01-NOV-1996
01-NOV-1996
01-JUN-2000
                                                                                                                                                                                    Genomics [2]
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01-MAY-2000
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                                                          SEQUENCE FROM N.A.
MEDLINE=92321501; PubMed=1621990;
Adams M.E., Huang D.Q., Yao L.Y.,
Adams M.E., Huang Isolation of mRNA
"Extraction and isolation of mRNA
Anal. Biochem. 202:89-95(1992).
EMBL, M60299; AAA73873.1; -.
                                                                                                                                                                                                                             "The human type II procollagen gene: identification of an a protein-coding domain and location of potential regulatory in the promoter and first intron.";
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                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE=91184811; PubMed=2081599;
                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COLLAGEN ALPHA
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                                        INTERPRO;
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PRO; IPR002895; -.

PF01508; PATAMECIUM_SA; 33.

PF01508; PATAMECIUM_SA; 33.

TE; PS00107; PROTEIN_KINASE_ATP;

TE; PS00678; WD_REPEATS; UNKNOWN.

NCE 2721 AA; 280341 MW; 63078
                       PRO; IPR001007; PF00093; Vwc;
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Alveolata; Ciliophora;
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from adult ar
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Search completed: June 13, 2001, 14:29:41 Job time: 542 sec
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                                                                                                                                                                                                                                                                                                             Signal; Glycoprotein; Cartilage.
SIGNAL 1 25 POTENTIAL.
CHAIN 26 103 COLLAGEN ALPHA 1(II) CHAIN.
NON_TER 103 103
SEQUENCE 103 AA; 11039 MW; E56E8CD2167086AB CRC64;
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       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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length:
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1: /cgn2_6/ptodata/2,
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3: /cgn2_6/ptodata/2,
4: /cgn2_6/ptodata/2,
5: /cgn2_6/ptodata/2,
6: /cgn2_6/ptodata/2,
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       June 13, 2001, 14:27:06; Search time 78.71 Seconds (without alignments) 1.953 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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US-08-446-128-7
US-08-446-128-7
US-08-456-125-1
US-08-45-355-1
US-08-45-355-1
US-08-469-412A-7
US-08-143-365A-10
US-08-143-365A-10
US-08-143-365A-10
US-08-143-365A-10
US-08-11-57B-2
US-08-11-191A-13
US-08-11-191A-13
US-08-11-191A-13
US-08-701-191A-13
US-08-701-191A-15

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   Patent No.
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TELEFAX: 212-382-0888

TELEX: 236925

INFORMATION FOR SEQ ID NO: 7

SEQUENCE CHARACTERISTICS:
LENGTH: 493 amino acids
TYPE: AMINO ACID
TOPOLOGY: linear
MOLECULE TYPE: protein
US-07-615-448A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
US-07-615-448A-7
; Sequence 7, Application US/07615448A
refert No. 5347076
                                                                                                                                             ADDRESSEE: Ostrolenk, Faber, Gerb & Soffen STREET: 1180 Avenue of the Americas CITY: New York COUNTRY: New York STATE: New York STATE: New York COUNTRY: USA ZIP: 10036-8403
COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATIBLE FORM: PC-DOS/MS-DOS SOFTWARE: PATENTIAN PC-DOS/MS-DOS SOFTWARE: PATENT APPLICATION DATA: APPLICATION UMMBER: US/07/615,448A FILING DATE: 19901119
CLASSIFICATION ENDATA: APPLICATION UMBER: US 07/815,448A FILING DATE: 19-APR-1988
PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/353,871
APPLICATION NUMBER: US 07/353,871
APPLICATION NUMBER: US 07/353,871
FILING DATE: 18-MAY-1989
ATTORNEY/AGENT INFORMATION: NAME: Dennis, Manette REGISTRATION NUMBER: 30,623
REFERENCE/DOCKET NUMBER: F-8366(CIP)(951-64)
TELEPHONE: 212-382-0700
TELEPAN: 2360-5
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Streber, Wolfgang
TITLE OF INVENTION: CHARACTERISATION OF A GENE ENZYME SYSTEM FOR INACTIVATION
TITLE OF INVENTION: CHARACTERISATION OF A GENE ENZYME SYSTEM FOR INACTIVATION
TITLE OF INVENTION: OF THE HERBICIDE PHENMEDIPHAN AND TRANSFER OF THE GENE
TITLE OF INVENTION: INTO PLANTS TO PRODUCE HERBICIDE-TOLERANT PLANTS
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AMINO ACID
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Boidol, Werner
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US-08-08-08-18-8
US-08-070-165F-4
US-08-08-18-963-13
US-08-426-125-3
US-08-426-125-3
US-08-426-125-4
US-08-426-125-3
US-08-425-355-4
US-08-425-355-4
US-08-425-355-5
US-08-425-355-5
US-08-471-570-10
US-08-471-570-10
US-08-08-885-418-6
                                                                                                                                                                                                             F-8366(CIP)(951-64)
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TOPOLOGY: 1; MOLECULE TYPE: US-08-196-361-7
                                                       Query Match 75.1
Best Local Similarity 71.2
Matches 5; Conservative
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US-08-196-361-7
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TELEX: 236925
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 493 amino acids
TYPE: amino acid
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Best Local
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-382-0700
                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 18-MAY-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/615,448
FILING DATE: 19-NOV-1990
ATTORNEY/AGENT INFORMATION:
NAME: 070014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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PRIOR APPLICATION UNDER: DE P3817384.0
PILLING DATE: 19-MAY-1988
PRIOR APPLICATION UNDER:
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APPLICANT: Boldol,
APPLICANT: Streber,
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
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                       2 GGCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07 FILING DATE: 18-MAY-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/196,361 FILING DATE:
                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER:
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15 GGCLEDG 21
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GGCLEDG 21
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5. 5543306
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10036-8403
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WENTION: PROCESS FOR THE ISOLATION AND
WENTION: CHARACTERISATION OF A GENE ENZYME SYSTEM FOR INACTIVATION
WENTION: OF THE HERBICIDE PHENMEDIPHAN AND TRANSFER OF THE GENE
WENTION: INTO PLANTS TO PRODUCE HERBICIDE-TOLERANT PLANTS
                                                                                                                                                                    linear
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Boidol, Werner
                                                                                                                                                   protein
                                                                        75.0%;
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71.48;
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                                                                   Score 36; [
Pred. No. 2.
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Pred. No. 2.7e+02;
2; Mismatches 0; Indels
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2.7e+02;
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RESULT 4
US-08-448-128-7
; Sequence 7, Application US/08448128
; Patent No. 5948670
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Best Local Similarity
Matches 5; Conserv
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ZIP: 10036-8403

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PStentin Release #1.0, Version #1.30
APPLICATION NUMBER: US/08/446,934
FILING DATE: OS-PEB-1994
FILING DATE: 02-PEB-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/196,361
FILING DATE: 02-PEB-1994
PRIOR APPLICATION DATA:
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Patent No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 493 amino acids
TYPE: amino acid
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APPLICANT: Boidol, weiner
APPLICANT: Streber, wolfgang
APPLICANT: Streber, Wolfgang
TITLE OF INVENTION: PROCESS FOR THE ISOLATION AND
TITLE OF INVENTION: CHARACTERISATION OF A GENE ENZYME SYSTEM FOR INACTIVATION
TITLE OF INVENTION: OF THE HERBICIDE PHENNEDLIPHAN AND TRANSFER OF THE GENE
TITLE OF INVENTION: INTO PLANTS TO PRODUCE HERBICIDE-TOLERANT PLANTS
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REFERENCE/DOCKET NUMBER: P/
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-382-0700
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TELEFAX: 236925
                                                                                                                                                                                                                    15 GGCLEDG
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                                                                                                                                                                                                                                                                             2 GGCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                       75.0%;
71.4%;
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Pred. No. 2.7e+02;
"'Amatches 0;
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RESULT 5
US-08-948-703-7
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Best Local 9
                                                                                                                                 Sequence 7, Application US/08948703
                                                                                                                                                                                                                                                                                          Matches
                                                                                                                   Patent No. 6060645
                                                                                                 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
            APPLICANT: Pohlenz,
APPLICANT: Boidol,
APPLICANT: Streber,
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 493 amino acids
TYPE: amino acid
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Rélease #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: 212-382-0700
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 19-MAY-1988 ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION:
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CORRESPONDENCE ADDRESS:
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nes 5; Conserv
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15 GGCLEDG 21
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 18-MAY
                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: DE P3817384.0 FILING DATE: 19-MAY-1988
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Streber, Wolfgang
NVENTION: PROCESS FOR THE ISOLATION AND
NVENTION: CHARACTERISATION OF A GENE ENZYME SYSTEM FOR INACTIVATION
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                                                                               Pohlenz,
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18-MAY-1989
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19-NOV-1990
                                                                                                                                                                                                                                                                                                            75.0%;
71.4%;
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                                                                                Hans-Dieter
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Pred. No.
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Query Match
Best Local Similarity
Tatches 5; Conserve
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; MOLECULE TYPE:
US-08-948-703-7
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                                                                                                                                                                   Sequence 1, Application US/08426125 Patent No. 5853973
                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 493 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 24,735
REFERENCE/DOCKET NUMBER: P/
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 18-MAY-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE P3817384.0
FILING DATE: 19-MAY-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                 TITLE OF INVENTION:
                                                                               APPLICANT: Kwagh, Jac
APPLICANT: Stockton,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 800
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                  APPLICANT: Kakefuda, Genichi
APPLICANT: Ott, Karl-Heinz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 19-MAY-1988 ATTORNEY/AGENT INFORMATION:
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                                 NUMBER OF SEQUENCES:
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CITY: New York
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07/615,448 FILING DATE: 19-NOV-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/196,361 FILING DATE: 02-FEB-1994
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1180 Avenue of the Americas
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                                                                                                  Kwagh, Jae-Gyu
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Darby & Darby
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                                                 Structure-Based Designed Herbicide Resistant Products
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71.4%;
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                                                                                    Gerald W.
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Pred. No. 2
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Query Match
Best Local Similarity 62.50,
Strokes 5; Conservative
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TELEX: 236687
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 599 amino acids
TYPE: amino acid
           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/455,355
FILING DATE: 31-MAY-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                             APPLICANT: Kakefuda, Genichi
APPLICANT: Ott, Karl-Heinz
APPLICANT: Kwagh, Jae-Gyu
APPLICANT: Stockton, Gerald
TITLE OF INVENTION: Structur
TITLE OF INVENTION: Resistan
ATTORNEY/AGENT INFORMATION:
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TOPOLOGY: Linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
ORGANISM: Zea mays
                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSEE: Darby & Darby
STREET: 805 Third Avenue
                                                                                                                                                                                                                       STREET: 805 Thi
CITY: New York
STATE: New York
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC COMPATIBLE
OPERATING SYSTEM PC COMPATIBLE
OPERATING SYSTEM PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION UMBER: US/08/426,125
FILING DATE: 20-APR-1995
CLASSIFICATION: 4.35
CLASSIFICATION: 4.35
CLASSIFICATION: 4.35
CLASSIFICATION: 4.35
                                                                                                                                                                                    COUNTRY: USA
ZIP: 10022-7513
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TELEPHONE: (212)-527-7783
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REGISTRATION NUMBER: 33,448
REFERENCE/DOCKET NUMBER: 0646/0A674
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ZIP: 10022-7513
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                                                                                                                                                                                                                         New York
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Pred. No. 6
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; MOLECULE TYPE: US-08-321-356-2
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US-08-321-356-2
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Best Local Similarity
Strong 5; Conserve
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Patent No.
                                                                                                                                            CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: MATCUS-WYDET, Lynn
REGISTRATION NUMBER: 34869
REFERENCE/DOCKET NUMBER: 133-
TELECOMMUNICATION INFORMATION:
                                                                TELEFAX: (415)857-1125
.NFORMATION FOR SEQ ID NO: 2
SEQUENCE CHARACTERISTICS:
LENGTH: 648 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                        ZIP: 94304

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION UNMBER: US/08/321,356

FILING DATE:
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SEQUENCE CHARACTERISTICS:
LENCTH: 599 amino acids
TYPE: amino acid
                          STRANDEDNESS:
TOPOLOGY: un!
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APPLICANT: WOODWORTH, Alison R.
TITLE OF INVENTION: GENE EXHIBITING RESISTANCE TO
TITLE OF INVENTION: ACETOLACTATE SYNTHASE INHIBITOR HERBICIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GGCCVQDG 8
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236 GGGCARSG 243
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                                                        TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 06-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212)-527-7783
                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Palo Alto
                                                                                                                                  ELEPHONE:
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                                                                                               E: (415)354-3588
(415)857-1125
FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                            California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/08321356
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975 California Avenue
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                            unknown
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Pred. No.
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Conservative

62.5%;

Pred. No. 6.5e+02; 1; Mismatches 2;

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INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
SENCTH; 648 amino acids
                                                                                                                                      Sequence 7, Application US/08469412A Patent No. 5856125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: Flopy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/321,356
FILING DATE:
CLASSTEPPING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4, Applic Patent No. 5633437
                                                                        GENERAL INFORMATION:
APPLICANT: Mavrothalassitis
APPLICANT: Blair, Donald G.
APPLICANT: Fisher, Robert J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
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ATTORNEY/AGENT INFORMATION:
NAME: Marcus-Wyner, Lynn
              APPLICANT: Athanas
APPLICANT: Sgouras
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: (415)354-3588
TELEFAX: (415)857-1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: SANDOZ AGRO INC.
STREET: 975 Callfornia Avenue
                                                             APPLICANT:
   UMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: GENE EXHIBITING RESISTANCE TO
                                                                                                                                                                                                                                     285
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APPLICANT: Woodworth,
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CITY: Palo Alto
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Marcus-Wyner, Lynn
REGISTRATION NUMBER: 34869
                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                  1 GGGCVQDG 8
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Beal Jr., Gregory J.
Athanasiou, Meropi A.
Sgouras, Dionyssios N.
VENTION: The ERF Genetic Locus and Its Products
EQUENCES: 16
                                                                          Fisher, Robert J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
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Pred. No. 6.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    133-0720
                                                                                                        George
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Version #1.25
                                                                                                                                                                                                                                                                                                                            Length 648;
                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                             0;
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Best Local Similarity
"hes 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-469-412A-7
                                                                                                                                                                                                                                                                                                                                                   Sequence 7, Application US/09021715 Patent No. 6194547 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/0 FILING DATE: 05-JUN-1995 CLASSIFICATION: 435 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 1..543
OTHER INFORMATION:
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         490 GGGCLSGG 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Garrett-Wackowski, REGISTRATION NUMBER: 37,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GGGCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 543 amino acids
                ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                       Sgouras, Dionyssios N.
TITLE OF INVENTION: The ERF Genetic Locus and Its Products
NUMBER OF SEQUENCES: 16
                                                                                                                                                                                                                                                                                                                               APPLICANT: Mavrothalassitis, George
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     amino acid
                                                                                                                      STATE: California
                                                                                                                                        CITY: San Francisco
                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Two Embarcadero
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Townsend and Townsend and Crew LLP o Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                              Beal Jr., Gregory J.
                                                                                                                                                                                                                                                                                               Fisher, Robert
                                                                                                                                                                                                                                                            Athanasiou, Meropi A
                                                                                                                                                                                                                                                                                                                 Blair, Donald G
                                                                                                      USA
 PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  included)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note- "murine ERF amino acid sequence (first 8 amino acids from first exon no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37,330
ER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 33;
Pred. No. 7
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Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 543;
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CURRENT APPLICATION DATA:

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COMUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC_DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/143,365A
FILING DATE: 29-OCT-1993
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Hendricks, Glenna M
REGISTRATION NUMBER: 32,535
DEEPDERMOF/DOCKET NIMBER: 10-well-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
US-08-143-365A-3
; Sequence 3, Application US/08143365A
; Patent No. 5726292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first 8 amino acids from first exon not; included) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
                                                                                         REFERENCE/DOCKET NUMBER: Lowell-2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 425-4250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEPAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Garrett-Wackowski, Eugenia
REGISTRATION NUMBER: 37, 330
REFERENCE/DOCKET NUMBER: 015280-229000
                                                                                                                                                                                                                                                                                                                                                                                                          E: Hendricks and Assoc.
9669 A Main Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 543 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/021,715
FILING DATE: 10-Feb-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMUNO-POTENTIATING SYSTEMS FOR PREPARATION OF IMMUNOGENIC MATER 15:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 33; DB 4;
Pred. No. 7.7e+02
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IMMUNOGENIC MATERIALS
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RESULT
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                                                                                       Query Match
Best Local Similarity
""" 5; Conserve
                                                                                                                                                                                           US-08-143-365A-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/143,365A
FILING DATE: 29-OCT-1993
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Hendricke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
US-08-143-365A-10
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Best Local Similarity 83.00.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 10, Application US/08143365A
Patent No. 5726392
GENERAL INFORMATION:
APPLICANT: LOWELL, George H
TITLE OF INVENTION: IMMUNO-POTENT:
TITLE OF INVENTION: PREPARATION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-143-365A-3
                                                                                                                                                                                                                                                                                                                                  TELEPHONE: (703) 425-42
TELEFAX: (703) 425-2767
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                       FRAGMENT TYPE:
                                                                                                                                                                                                                         HYPOTHETICAL: 1
                                                                                                                                                                                                                                                                                                                                                                                              NAME: Hendricks, Glenna M
RECISTRATION NUMBER: 32,535
REFERENCE/DOCKET NUMBER: Lowell-2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: peptide
HYPOTHETICAL: NO
HYPOTHETICAL: NO
FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hendricks and Assoc.
STREET: 9669 A Main Street
                                                                       1 GGGCVQ 6
                                                                                                                                                                                                                                                                                    LENGTH: 19 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Fairfax
                                          GGGCTQ 12
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ENTION: IMMUNO-POTENTIATING SYSTEMS FOR
ENTION: PREPARATION OF IMMUNOGENIC MATERIALS
                                                                                                                                                                                                      internal
                                                                                                                                                                                                                                                                                   single
                                                                                                                       66.7%;
83.3%;
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                                                                                                                   Score 32; D
Pred. No. 53
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                                                                                                  Mismatches
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Pred. No. 40;
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Query Match
Best Local Similarity
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Conservative

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68.8%;

MOLECULE TYPE: protein

NAME/KEY: Protein LOCATION: 1.543 OTHER INFORMATION:

FEATURE

490 GGGCLSGG 497

1 GGGCVQDG 8

GENERAL INFORMATION:

lowell, George н

TITLE OF INVENTION: IMM
TITLE OF INVENTION: PRE
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:

COUNTRY: UZIP: 22031

SD.

STREET: ADDRESSEE:

Fairfax

TELEFAX: (703) 425-2767
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:

14 amino acids

US-08-318-157B-2

Sequence 2, Application US/08318157B Patent No. 5874540

GENERAL INFORMATION:

APPLICANT: HANSEN, APPLICANT: ARMOUR,

TITLE OF INVENTION:

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Best Local Similarity
"htches 6; Conserva
                                                                                                                                                                                                                                                                                                                  US-08-471-570-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; MOLECULE TYPE: protein US-08-318-157B-2
                                                                                                                                                                                                                                                                                  sequence 2, Application US/08471570 Patent No. 5750371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/318,157B
FILING DATE: 05-OCT-1994
CLASSIFICATION: 424
ATTORNEY AGENT INFORMATION:
NAME: SAXE, Bernhard D.
REGISTRATION NUMBER: 28,665
REFERENCE/DOCKET NUMBER: 18733/464
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5399
TELEFAX: (202)672-5399
                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 904136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                         TITLE OF INVENTION: PROTEIN, DNA AND USE THEREOF NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: DAVID G. CONLIN; DIKE, BRONSTEIN, ROBERTS ADDRESSEE: CUSHMAN
                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 119 amino acid
                                                                                                                                                                                                     APPLICANT: WATANABE, Tatsuya
                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 12-
TELEFAX: 904136
                                                                                      STREET: 130 Water Str
CITY: Boston
STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 3000 K SI
CITY: Washington
STATE: D.C.
 COMPUTER: IBM PC OPERATING SYSTEM:
                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 20007-5109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                 8 GGGLVQSG 15
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                                                               02109
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E: Foley & Lardner
3000 K Street, N.W., Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119 amino acids
                                                                                                                            130 Water Street
                                                                                                                                                                                                                                    SENOO, Masaharu
                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                      IGARASHI, Koichi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kathryn L.
CDR-GRAFTED TYPE III ANTI-CEA HUMANIZED
MOUSE MONOCLONAL ANTIBODIES
compatible
PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                          66.7%;
75.0%;
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Pred. No. 2.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 119;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                             0.
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Search completed: June 13, 2001, 14:27:06 Job time: 627 sec
                                                                                                                                                                                                                                                              US-08-471-570-2
                                                                                                                                                              Query Match 66.7%;
Best Local Similarity 71.4%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
APPLICATION NUMBER: US 07/743369
APPLICATION NUMBER: US 07/743369
ATTORNEY/AGENT INFORMATION:
NAME: LINEK, Ernest V
REGISTRATION NUMBER: 29822
REFERENCE/DOCKET NUMBER: 40897
                                                                                                                                                                                                                                                                                                                                               TELEFAX: (617)523-6440
TELEX: 200291 STRE UR
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)523-3400
TELEFAX: (617)523-6440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                             MOLECULE TYPE:
                                                                                          111 GACTODG 117
                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                              TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/471,570
                                                                                                                           2 GGCVQDG 8
                                                                                                                                                                                                                                                                             protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08/149,664
                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                 Score 32; DB 1;
Pred. No. 4.4e+02;
                                                                                                                                                                2; Indels
                                                                                                                                                                                                    Length 201;
                                                                                                                                                                0
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

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Minimum
Maximum
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB DB
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A_Geneseq_0401:*

| SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
| SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    June 13, 2001, 14:25:44; Search time 150.28 Seconds (without alignments) 3.043 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 390729 seqs, 57163235 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCT-US01-05825A-23
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pred. No. is to score greater and is derived is the number of results predicted by chance to have a ter than or equal to the score of the result being printed,

s deri	rived k	by analysis of	319	s derived by analysis of the total score distribution.	distribution.
				SUMMARIES	
	Ouerv				
ore	Match	Match Length DB	æ	ID	Description
44	100.0	80	21	Y79127	Peptide antagonist
44	100.0	13	20	W86096	
44	100.0	13	20	W86076	Peptide from human
44	100.0	13	20	W86088	Peptide from human
44	100.0	18	16	W73953	IgG heavy chain fr
44	100.0	18	16	R82833	N-terminal of C179
44	100.0	20	20	W94487	Human adult heart
44	100.0	20	21	Y79130	Human adult heart
44	100.0	30	17	R87049	Human group III he
44	100.0	30	21	Y68811	Human heavy chain
44	100.0	40	7	P61028	H-chain variable r

New peptide antagonist of zonulin useful as antiinflammatory agent for

WPI; 2000-205565/18

(UYMA-) UNIV MARYLAND BALTIMORE

Result

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2 44 100.0 62 16 R76969  44 100.0 73 21 Y64974  44 100.0 84 21 Y64925  44 100.0 87 17 R82997  44 100.0 96 21 Y66846  44 100.0 96 21 Y66844  44 100.0 97 21 B40089  44 100.0 97 21 B40089  44 100.0 97 21 B40012  44 100.0 98 15 R52066  44 100.0 98 15 R72074  44 100.0 98 16 R72074  44 100.0 98 17 R82997  44 100.0 98 18 Homen TNF binding Heavy Chain variab Sparreactive VH reference Sparreactive VH reference Sparreactive Spa					
2 44 100.0 62 16 R76969  44 100.0 73 21 Y64774  44 100.0 84 21 Y64925  54 44 100.0 87 17 R92997  54 41 100.0 96 21 Y56646  56 44 100.0 96 21 Y56646  57 44 100.0 96 21 Y56646  58 44 100.0 97 21 B40099  59 44 100.0 97 21 B40099  60 44 100.0 97 21 B40112  61 44 100.0 97 21 B40135  62 44 100.0 98 15 R52666  63 44 100.0 98 15 R52666  64 100.0 98 15 R526614  64 100.0 98 16 R720774  65 44 100.0 98 17 R92997  66 44 100.0 98 18 B40072  67 44 100.0 98 21 B40086  68 44 100.0 98 21 B40086  69 44 100.0 98 21 B40087  60 44 100.0 98 21 B40087  60 44 100.0 98 21 B40093  60 44 100.0 98 21 B40093  61 44 100.0 98 21 B40096  62 44 100.0 98 21 B40097  63 44 100.0 98 21 B40097  64 100.0 98 21 B40097  65 44 100.0 98 21 B40096  66 44 100.0 98 21 B40097  67 44 100.0 98 21 B40097  68 44 100.0 98 21 B40097  69 44 100.0 98 21 B40097  60 44 100.0 98 21 B40097  60 44 100.0 98 21 B40097  61 44 100.0 98 21 B40097  62 44 100.0 98 21 B40097  63 44 100.0 98 21 B40097  64 100.0 98 21 B40113  64 100.0 98 21 B40113  65 44 100.0 98 21 B40113  66 44 100.0 98 21 B40113  67 44 100.0 98 21 B40113  68 44 100.0 98 21 B40113  69 44 100.0 98 21 B40113  60 44 100.0	rtial peptid	98	00.	44	
2 44 100.0 62 16 R76969  44 100.0 73 21 Y64774  44 100.0 84 21 Y64925  44 100.0 87 17 R92997  44 100.0 98 21 Y64844  46 100.0 96 21 Y566466  47 100.0 96 21 Y64844  48 100.0 97 21 B40089  48 100.0 97 21 B40089  49 100.0 97 21 B40089  40 100.0 97 21 B40089  41 100.0 97 21 B40089  42 100.0 98 15 R52666  43 100.0 98 15 R52666  44 100.0 98 15 R752074  44 100.0 98 16 R72074  45 100.0 98 17 R92997  46 100.0 98 18 R72074  47 100.0 98 19 W59614  48 100.0 98 21 B40086  49 21 B40086  40 100.0 98 21 B40087  40 100.0 98 21 B40093  41 100.0 98 21 B40093  42 100.0 98 21 B40093  43 100.0 98 21 B40094  44 100.0 98 21 B40095  44 100.0 98 21 B40095  45 100.0 98 21 B40095  46 100.0 98 21 B40096  47 100.0 98 21 B40096  48 100.0 98 21 B40097  49 21 B40096  40 100.0 98 21 B40097  40 100.0 98 21 B40097  41 100.0 98 21 B40096  42 100.0 98 21 B40097  43 100.0 98 21 B40096  44 100.0 98 21 B40097  44 100.0 98 21 B40096  45 100.0 98 21 B40096  46 100.0 98 21 B40097  47 100.0 98 21 B40097  48 100.0 98 21 B40096  49 21 B40113  40 100.0 98 21 B40113  40 100.0 98 21 B40113  41 100.0 98 21 B40113  42 100.0 98 21 B40113  43 100.0 98 21 B40113  44 100.0 98 21 B40113  45 100.0 98 21 B40113  46 100.0 98 21 B40113  47 100.0 98 21 B40113  48 100.0 98 21 B40113  49 100.0 98 21 B40113  40 100.0 98 21 B40113  41 100.0 98 21 B40113  42 100.0 98 21 B40113  43 100.0 98 21 B40113  44 100.0 98 21 B40113  45 100.0 98 21 B40113  46 100.0 98 21 B40113  47 100.0 98 21 B40113  48 100.0 98 21 B40113  49 100.0 98 21 B40113  40 100.0 98 21 B40113  40 100.0 98 21 B40113  41 100.0 98 21 B40113  42 100.0 98 21 B40113  43 100.0 98 21 B40113  44 100.0 98 21 B40113  45 100.0 98 21 B40113  46 100.0 98 21 B40113  47 100.0 98 21 B40113  48 100.0 98 21 B40113  49 100.0 98 21 B40113  40 100.0 98 21 B40113	ti-hIL12 ant	98	00.	44	4
3 44 100.0 62 16 R76969  44 100.0 73 21 Y64774  4 44 100.0 84 21 Y64925  5 44 100.0 87 17 R92997  6 44 100.0 96 21 Y56846  8 44 100.0 96 21 Y56846  8 44 100.0 97 21 B40092  1 44 100.0 97 21 B40112  1 44 100.0 97 21 B40113  44 100.0 98 15 R52066  44 100.0 98 15 R52067  44 100.0 98 15 R752074  44 100.0 98 16 R72074  44 100.0 98 17 B40084  44 100.0 98 18 B40087  44 100.0 98 21 B40086  44 100.0 98 21 B40087  44 100.0 98 21 B40087  44 100.0 98 21 B40093  44 100.0 98 21 B40094  45 100.0 98 21 B40095  46 100.0 98 21 B40096  47 48 100.0 98 21 B40097  48 100.0 98 21 B40097  49 100.0 98 21 B40097  40 100.0 98 21 B40097  41 100.0 98 21 B40097  42 100.0 98 21 B40097  43 100.0 98 21 B40097  44 100.0 98 21 B40097  45 100.0 98 21 B40097  46 100.0 98 21 B40097  47 140 100.0 98 21 B40097  48 100.0 98 21 B40097  49 100.0 98 21 B40097  40 100.0 98 21 B40097  41 100.0 98 21 B40113  42 100.0 98 21 B40113  43 100.0 98 21 B40113  44 100.0 98 21 B40113  44 100.0 98 21 B40113  45 100.0 98 21 B40113  46 100.0 98 21 B40113  47 100.0 98 21 B40113  48 100.0 98 21 B40113  49 100.0 98 21 B40113  40 100.0 98 21 B40113  41 100.0 98 21 B40113  42 100.0 98 21 B40113  43 100.0 98 21 B40113  44 100.0 98 21 B40113  44 100.0 98 21 B40113  45 100.0 98 21 B40113  46 100.0 98 21 B40113  47 100.0 98 21 B40113  48 100.0 98 21 B40113  49 100.0 98 21 B40113  40 100.0 98 21 B40113  41 100.0 98 21 B40113  42 100.0 98 21 B40113  43 100.0 98 21 B40113  44 100.0 98 21 B40113  44 100.0 98 21 B40113  45 100.0 98 21 B40113  46 100.0 98 21 B40113  47 100.0 98 21 B40113  48 100.0 98 21 B40113  49 100.0 98 21 B40113  40 100.0 98 21 B40113  40 100.0 98 21 B40113  41 100.0 98 21 B40113  42 100.0 98 21 B40113  43 100.0 98 21 B40113  44 100.0 98 21 B40113  45 100.0 98 21 B40113  46 100.0 98 21 B40113  47 100.0 98 21 B40113  48 100.0 98 21 B40113  49 100.0 98 21 B40113  40 100.0 98 21 B40113	i-hIL12 ant	98	00.	44	
2 44 100.0 62 16 R76969  4 4100.0 73 21 Y64974  4 44 100.0 84 21 Y64925  5 44 100.0 87 17 R92997  6 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y56646  8 44 100.0 97 21 B40089  9 44 100.0 97 21 B40013  1 44 100.0 97 21 B40135  4 4 100.0 98 15 R52066  6 44 100.0 98 15 R52066  6 44 100.0 98 15 R72074  4 100.0 98 15 R72074  4 100.0 98 15 R40816  6 44 100.0 98 15 R40816  6 44 100.0 98 16 R72074  4 100.0 98 17 B40084  7 4 100.0 98 18 B40085  8 44 100.0 98 21 B40087  8 44 100.0 98 21 B40087  8 44 100.0 98 21 B40093  8 44 100.0 98 21 B40094  9 44 100.0 98 21 B40095  9 44 100.0 98 21 B40097  9 44 100.0 98 21 B40113	i-hIL12 ant	98	00.	44	
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64774  4 4 100.0 84 21 Y64925  5 44 100.0 87 17 R92997  6 44 100.0 93 20 Y11665  7 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y64844  8 44 100.0 97 21 B40089  9 44 100.0 97 21 B40089  1 4 100.0 97 21 B40089  1 4 100.0 97 21 B40112  1 44 100.0 97 21 B40235  4 100.0 98 15 R52666  4 100.0 98 15 R54816  5 44 100.0 98 15 R54816  6 44 100.0 98 16 R72074  8 44 100.0 98 17 B40084  9 44 100.0 98 21 B40085  1 44 100.0 98 21 B40086  1 44 100.0 98 21 B40086  1 44 100.0 98 21 B40093  4 100.0 98 21 B40093  4 100.0 98 21 B40095  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40095  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 21 B40097  4 100.0 98 21 B40096  4 100.0 98 2	i-hIL12 ant	98	8	44	
3 44 100.0 62 16 R76969  44 100.0 73 21 Y64774  4 44 100.0 84 21 Y64925  5 44 100.0 87 17 R92997  6 44 100.0 98 10 R92997  44 100.0 96 21 Y56846  8 44 100.0 97 21 B40092  14 100.0 97 21 B40092  14 100.0 97 21 B40112  14 100.0 98 15 R52066  44 100.0 98 16 R72074  44 100.0 98 17 R92997  44 100.0 98 18 H0884  45 100.0 98 19 W59614  46 100.0 98 19 W59614  47 100.0 98 19 W59614  48 100.0 98 21 B40084  49 100.0 98 21 B40086  40 100.0 98 21 B40086  41 100.0 98 21 B40087  42 100.0 98 21 B40087  43 100.0 98 21 B40093  44 100.0 98 21 B40094  45 100.0 98 21 B40095  46 100.0 98 21 B40095  47 14 100.0 98 21 B40096  48 100.0 98 21 B40097  49 100.0 98 21 B40097  40 100.0 98 21 B40097  41 100.0 98 21 B40097  42 100.0 98 21 B40097  43 100.0 98 21 B40097  44 100.0 98 21 B40097  45 100.0 98 21 B40097  46 100.0 98 21 B40097  47 100.0 98 21 B40097  48 100.0 98 21 B40097  49 100.0 98 21 B40097  40 100.0 98 21 B40097  40 100.0 98 21 B40097  41 100.0 98 21 B40097  42 100.0 98 21 B40097  43 100.0 98 21 B40097  44 100.0 98 21 B40097  44 100.0 98 21 B40097  45 100.0 98 21 B40097  46 100.0 98 21 B40097  47 111112	i-hIL12.ant	98	8	44	
2 44 100.0 62 16 R76969  4 4100.0 73 21 Y64974  4 4 100.0 84 21 Y64925  5 44 100.0 87 17 R92997  6 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y56646  8 44 100.0 97 21 B40089  9 44 100.0 97 21 B40012  1 44 100.0 97 21 B40135  1 44 100.0 98 15 R52066  6 44 100.0 98 15 R52066  6 44 100.0 98 15 R52066  6 44 100.0 98 16 R72074  4 100.0 98 16 R72074  4 100.0 98 17 R92997  4 100.0 98 18 R52066  6 44 100.0 98 19 W56514  6 44 100.0 98 19 W56514  7 44 100.0 98 21 B40084  8 44 100.0 98 21 B40085  8 44 100.0 98 21 B40086  9 44 100.0 98 21 B40087  9 44 100.0 98 21 B40089  14 100.0 98 21 B40094  15 R52066  16 44 100.0 98 21 B40087  17 44 100.0 98 21 B40087  18 44 100.0 98 21 B40094  18 44 100.0 98 21 B40094  18 44 100.0 98 21 B40095  18 44 100.0 98 21 B40096  28 44 100.0 98 21 B40097  39 44 100.0 98 21 B40096  44 100.0 98 21 B40097  44 100.0 98 21 B40097  44 100.0 98 21 B40097  45 44 100.0 98 21 B40097  46 100.0 98 21 B40097  47 Anti-hill2  48 Anti-hill2  49 Anti-hill2  40 Anti-hill2  40 Anti-hill2  41 100.0 98 21 B40097  42 Anti-hill2  43 Anti-hill2  44 100.0 98 21 B40097  44 100.0 98 21 B40097  45 Anti-hill2  46 Anti-hill2  47 Anti-hill2  48 Anti-hill2  49 Anti-hill2  40 Anti-hill2  40 Anti-hill2  41 Anti-hill2  42 Anti-hill2  43 Anti-hill2  44 Anti-hill2  44 Anti-hill2  45 Anti-hill2  46 Anti-hill2  47 Anti-hill2  48 Anti-hill2  49 Anti-hill2  40 Anti-hill2  40 Anti-hill2  41 Anti-hill2  42 Anti-hill2  43 Anti-hill2  44 Anti-hill2	i-hIL12 ant	98	80.	44	
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64774  4 4 100.0 84 21 Y64925  4 4 100.0 87 17 R92997  5 44 100.0 98 17 R92997  4 4 100.0 96 21 Y56646  6 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y64844  8 44 100.0 97 21 B40089  9 44 100.0 97 21 B40089  1 44 100.0 97 21 B40112  1 44 100.0 97 21 B40235  1 44 100.0 98 15 R52666  44 100.0 98 18 B40072  44 100.0 98 21 B40086  44 100.0 98 21 B40086  44 100.0 98 21 B40093  44 100.0 98 21 B40093  44 100.0 98 21 B40095  44 100.0 98 21 B40095  44 100.0 98 21 B40096	i-hIL12 ant	98	8	44	
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64774 Human 5 ES 44 100.0 84 21 Y64925 Human 5 ES 44 100.0 87 17 R92997  44 100.0 98 17 R92997  44 100.0 96 21 Y56846 Human 5 ES 44 100.0 96 21 Y56846 Human 5 ES 44 100.0 97 21 B40099 Anti-hill2 44 100.0 97 21 B40112 Anti-hill2 44 100.0 97 21 B40113 Anti-hill2 44 100.0 97 21 B40113 Anti-hill2 44 100.0 98 15 R52066 Anti-hill2 44 100.0 98 15 R52066 Anti-hill2 44 100.0 98 15 R52066 Anti-hill2 44 100.0 98 16 R72074 Anti-hill2 44 100.0 98 17 R94089 Anti-hill2 44 100.0 98 18 R72074 Anti-hill2 44 100.0 98 19 W59614 Anti-hill2 44 100.0 98 21 B40084 Anti-hill2 44 100.0 98 21 B40086 Anti-hill2 44 100.0 98 21 B40087 Anti-hill2 44 100.0 98 21 B40087 Anti-hill2 44 100.0 98 21 B40093 Anti-hill2 44 100.0 98 21 B40094 Anti-hill2 44 100.0 98 21 B40095 Anti-hill2 44 100.0 98 21 B40095 Anti-hill2 44 100.0 98 21 B40096 Anti-hill2 44 100.0 98 21 B40096 Anti-hill2 44 100.0 98 21 B40097 Anti-hill2 45 46 100.0 98 21 B40097 Anti-hill2 46 100.0 98 21 B40097 Anti-hill2 47 48 100.0 98 21 B40097 Anti-hill2 48 49 100.0 98 21 B40097 Anti-hill2 49 40 100.0 98 21 B40097 Anti-hill2 40 40 100.0 98 21 B40097 Anti-hill2 41 41 100.0 98 21 B40097 Anti-hill2	i-hIL12 ant	98	8	44	
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64974  4 44 100.0 87 17 R92997  5 44 100.0 87 17 R92997  6 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y56646  8 44 100.0 97 21 B40089  9 44 100.0 97 21 B40012  1 44 100.0 97 21 B40135  1 44 100.0 98 15 R52066  5 44 100.0 98 15 R52066  6 44 100.0 98 15 R52066  6 44 100.0 98 16 R72074  4 100.0 98 16 R72074  4 100.0 98 17 R92997  8 44 100.0 98 18 B40084  9 44 100.0 98 19 W59614  9 44 100.0 98 10 R72074  44 100.0 98 21 B40084  9 44 100.0 98 21 B40085  1 44 100.0 98 21 B40086  1 44 100.0 98 21 B40087  2 44 100.0 98 21 B40087  3 44 100.0 98 21 B40087  44 100.0 98 21 B40087  45 46 100.0 98 21 B40087  46 100.0 98 21 B40087  47 100.0 98 21 B40087  48 100.0 98 21 B40087  49 21 B40087  40 100.0 98 21 B40087  40 100.0 98 21 B40087  41 100.0 98 21 B40087  42 100.0 98 21 B40087  43 100.0 98 21 B40087  44 100.0 98 21 B40087  45 100.0 98 21 B40087  46 100.0 98 21 B40087  47 100.0 98 21 B40087  48 100.0 98 21 B40087  49 21 B40087  40 100.0 98 21 B40087  40 100.0 98 21 B40087  41 100.0 98 21 B40087  42 100.0 98 21 B40087  43 100.0 98 21 B40087  44 100.0 98 21 B40087  45 100.0 98 21 B40087  46 100.0 98 21 B40087  47 100.0 98 21 B40087  48 100.0 98 21 B40087  49 100.0 98 21 B40087  40 100.0 98 21 B40087  40 100.0 98 21 B40087  41 100.0 98 21 B40087  42 100.0 98 21 B40087  43 100.0 98 21 B40087  44 100.0 98 21 B40087  44 100.0 98 21 B40087  45 100.0 98 21 B40087  46 100.0 98 21 B40087  47 100.0 98 21 B40087  48 100.0 98 21 B40087  49 100.0 98 21 B40087  40 100.0 98 21 B40088	i-hIL12 ant	98	8	44	5
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64774  4 4 100.0 84 21 Y64925  4 4 100.0 87 17 R92997  5 44 100.0 98 17 R92997  4 4 100.0 96 21 Y56646  6 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y64844  8 44 100.0 97 21 B40099  9 44 100.0 97 21 B40092  1 44 100.0 97 21 B40112  1 44 100.0 97 21 B40235  3 44 100.0 98 15 R52666  44 100.0 98 17 R52666  44 100.0 98 18 R52666  44 100.0 98 19 R52666  45 Anti-hIL12  46 100.0 98 21 B40085  47 Anti-hIL12  48 Anti-hIL12  49 Anti-hIL12  40 Anti-hIL12  41 100.0 98 21 B40093  42 Anti-hIL12  43 Anti-hIL12  44 100.0 98 21 B40093  44 100.0 98 21 B40093  45 Anti-hIL12	i-hIL12 ant	98	8	44	35
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64774 Human 5 ES 44 100.0 84 21 Y64925  4 44 100.0 87 17 R92997  5 44 100.0 98 17 R92997  4 100.0 96 21 Y56464  8 44 100.0 96 21 Y66484  8 44 100.0 97 21 B40089  9 44 100.0 97 21 B40012  1 44 100.0 97 21 B40112  1 44 100.0 97 21 B40113  44 100.0 97 21 B40113  44 100.0 98 15 R52066  44 100.0 98 15 R52066  44 100.0 98 15 R720974  44 100.0 98 16 R720974  44 100.0 98 17 R92997  44 100.0 98 18 R720974  44 100.0 98 19 W59614  44 100.0 98 19 W59614  44 100.0 98 21 B40086  44 100.0 98 21 B40086  44 100.0 98 21 B40086  44 100.0 98 21 B40087  45 46 100.0 98 21 B40087  46 100.0 98 21 B40087  47 48 100.0 98 21 B40087  48 100.0 98 21 B40087  49 Anti-hill2  40 100.0 98 21 B40087	i-hIL12 ant	98	8	44	4
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64974  4 44 100.0 87 21 Y64975  5 44 100.0 87 17 R92997  6 44 100.0 96 21 Y561665  7 44 100.0 96 21 Y66484  8 44 100.0 97 21 B40089  9 44 100.0 97 21 B40013  1 44 100.0 97 21 B40115  2 44 100.0 97 21 B40115  1 44 100.0 97 21 B40135  4 100.0 97 21 B40135  4 100.0 98 15 R54816  5 44 100.0 98 16 R72074  4 100.0 98 16 R72074  8 44 100.0 98 18 H0087  8 44 100.0 98 11 W59614  8 44 100.0 98 12 B40085  9 44 100.0 98 21 B40086  1 44 100.0 98 21 B40086  8 44 100.0 98 21 B40087  8 44 100.0 98 21 B40087  8 44 100.0 98 21 B40086	i-hIL12 ant	98	80.	44	ü
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64774 Humann 5' ES  4 4 100.0 87 17 R92997  4 4 100.0 98 7 17 R92997  6 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y64844  8 44 100.0 97 21 B40092  1 44 100.0 97 21 B40092  1 44 100.0 97 21 B40112  1 44 100.0 97 21 B40115  3 44 100.0 97 21 B4012  4 100.0 97 21 B40135  4 100.0 98 15 R52666  4 4 100.0 98 15 R52666  4 4 100.0 98 15 R52661  4 4 100.0 98 16 R720774  4 4 100.0 98 17 R94086  4 100.0 98 21 B40086  4 100.0 98 21 B40086  Anti-hIL12	i-hIL12 ant	98	8	44	ະ
2 44 100.0 62 16 R76969 3 44 100.0 73 21 Y64774 Human 5' ES 44 100.0 84 21 Y64925 Human 5' ES 44 100.0 87 17 R92997 5 44 100.0 98 17 R92997 6 44 100.0 96 21 Y56646 Human 5' ES 7 44 100.0 96 21 Y56646 Partial per 8 44 100.0 96 21 Y6689 Anti-hIL12 9 44 100.0 97 21 B40092 Anti-hIL12 14 100.0 97 21 B40092 Anti-hIL12 14 100.0 97 21 B40112 Anti-hIL12 14 100.0 97 21 B40112 Anti-hIL12 14 100.0 98 15 R52066 Anti-hIL12 2 44 100.0 98 15 R52066 Anti-hIL12 3 44 100.0 98 15 R52066 Anti-hIL12 44 100.0 98 15 R52067 Anti-hIL12 44 100.0 98 15 R52067 Anti-hIL12 5 44 100.0 98 15 R52067 Anti-hIL12 6 44 100.0 98 15 R52067 Anti-hIL12 7 44 100.0 98 15 R52067 Anti-hIL12 8 44 100.0 98 15 R52067 Anti-hIL12 9 44 100.0 98 16 R72074 Anti-hIL12 9 44 100.0 98 21 B40084 Anti-hIL12 9 44 100.0 98 21 B40084 Anti-hIL12 9 44 100.0 98 21 B40084 Anti-hIL12	i-hIL12 ant	98	8	44	ï
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64973  4 44 100.0 84 21 Y64925  5 44 100.0 87 17 R92997  5 44 100.0 96 17 R92997  6 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y64844  9 44 100.0 97 21 B40089  9 44 100.0 97 21 B40089  14 100.0 97 21 B40112  14 100.0 97 21 B40115  14 100.0 97 21 B40115  14 100.0 97 21 B40115  15 44 100.0 98 14 R34279  16 44 100.0 98 15 R54816  17 44 100.0 98 16 R72074  18 44 100.0 98 16 R72074  19 44 100.0 98 17 R54816  10 44 100.0 98 18 R54816  10 44 100.0 98 19 R54816  10 44 100.0 98 10 R72074  10 44 100.0 98 11 R54816  10 44 100.0 98 12 B40072  11 A4 100.0 98 13 R54816  12 A4 100.0 98 14 R34279  13 A4 100.0 98 15 R54816  14 A4 100.0 98 16 R72074  15 A4 100.0 98 17 R54816  16 A4 100.0 98 18 R54816  17 A4 100.0 98 19 R54816  18 A4 100.0 98 10 R72074  29 Anti-hill2  30 A4 100.0 98 11 R54816  31 A4 100.0 98 12 B40082  44 100.0 98 13 R54816  44 100.0 98 14 R3479  45 A4 100.0 98 15 R54816  46 A4 100.0 98 16 R72074  47 Anti-hill2  48 A4 100.0 98 21 B40084  49 Anti-hill2	i-hIL12 ant	98	8	44	ō
2 44 100.0 62 16 R76969  3 44 100.0 73 21 Y64974  4 44 100.0 84 21 Y64925  5 44 100.0 87 17 R92997  6 44 100.0 98 20 Y11665  7 44 100.0 96 21 Y56646  8 44 100.0 96 21 Y64644  8 44 100.0 97 21 B40089  9 44 100.0 97 21 B40012  1 44 100.0 97 21 B40135  1 44 100.0 97 21 B40135  2 44 100.0 97 21 B40135  4 100.0 98 15 R52066  4 4 100.0 98 15 R52066  4 4 100.0 98 16 R72074  4 4 100.0 98 16 R72074  4 4 100.0 98 16 R72074  4 100.0 98 17 RS98614  8 44 100.0 98 18 B4013  8 44 100.0 98 18 R52066  9 44 100.0 98 18 R52066  44 100.0 98 18 R52066  44 100.0 98 18 R52066  45 100.0 98 18 R52066  46 100.0 98 18 R52066  47 100.0 98 18 R52066  48 100.0 98 18 R52066  49 100.0 98 18 R52066  40 100.0 98 18 R52066  40 100.0 98 18 R52066  41 100.0 98 18 R52066  42 100.0 98 18 R52066  43 100.0 98 18 R52066  44 100.0 98 18 R52066  44 100.0 98 18 R52066  45 A4 100.0 98 18 R52066  46 A4 100.0 98 18 R52066  47 A4 100.0 98 19 R53661  48 A4 100.0 98 19 R53661  49 A4 100.0 98 10 R72074  40 A4 100.0 98 11 R52066	i-hIL12 ant	98	8	44	ö
2 44 100.0 62 16 R76969 3 44 100.0 73 21 Y64774 Human 5' ES 4 4 100.0 84 21 Y64925 Human 5' ES 4 4 100.0 87 17 R92997 Homologous 6 44 100.0 93 20 Y11665 Human 5' ES 7 44 100.0 96 21 Y56646 Partial per 8 44 100.0 96 21 Y64844 Human 5' ES 9 44 100.0 96 21 Y64844 Human 5' ES 9 44 100.0 97 21 B40092 Anti-hill 1 44 100.0 97 21 B40112 Anti-hill 2 44 100.0 97 21 B40112 Anti-hill 2 44 100.0 97 21 B4023 Anti-hill 2 44 100.0 97 21 B4035 Anti-hill 3 44 100.0 98 15 R52666 Heavy chait 4 100.0 98 15 R52816 SpA-react 6 44 100.0 98 15 R52816 SpA-react 7 44 100.0 98 15 R52814 Anti-RSV F	i-hIL12	98	8	44	ã
44 100.0 62 16 R76969  44 100.0 73 21 Y64974 Human 5' EST x  44 100.0 84 21 Y64925 Human 5' EST x  44 100.0 87 17 R92997  44 100.0 93 20 Y11665 Human 5' EST x  44 100.0 96 21 Y56646 Human 5' EST s  44 100.0 96 21 Y64844 Human 5' EST s  44 100.0 97 21 B40089 Anti-hIL12 ant  44 100.0 97 21 B40012 Anti-hIL12 ant  44 100.0 97 21 B40112 Anti-hIL12 ant  44 100.0 97 21 B40112 Anti-hIL12 ant  44 100.0 98 15 R52066 Human TWR bind  44 100.0 98 15 R54816 BA-reactive V  44 100.0 98 15 R72074 DP54 VH region	i-RSV F	98	8	44	
44 100.0 62 16 R76969  44 100.0 73 21 Y64774 . Human 5 EST x 44 100.0 84 21 Y64925 . Homologous seq 44 100.0 87 17 R92997 . Homologous seq 44 100.0 93 20 Y11665 . Human 5 EST x 100.0 96 21 Y56646 . Partial peptid 44 100.0 96 21 Y64844 . Human 5 EST x 100.0 97 21 B40089 . Anti-hIL12 ant 44 100.0 97 21 B40112 . Anti-hIL12 ant 47 100.0 97 21 B40113 . Anti-hIL12 ant 47 100.0 98 15 R52066 . Heavy Chain va 44 100.0 98 15 R52066 . Heavy Chain va 44 100.0 98 15 R52066 . Heavy Chain va 58 Fareactive v	VH region	98	8	44	8
44 100.0 62 16 R76969  44 100.0 73 21 Y64774 Human 5' EST x 100.0 87 17 R92997  44 100.0 87 17 R92997 Homologous seq Homologou	reactive VH	98	8	44	Ġ
44 100.0 62 16 R76969  44 100.0 73 21 Y64974 Human 5' EST x  44 100.0 84 21 Y64925 Human 5' EST x  44 100.0 87 17 R92997  44 100.0 93 20 Y11665 Human 5' EST x  46 100.0 96 21 Y56646 Partial peptic  47 100.0 97 21 B40089 Anti-hIL12 ant  48 100.0 97 21 B40015  49 100.0 97 21 B40112 Anti-hIL12 ant  40 100.0 97 21 B40113 Anti-hIL12 ant  41 100.0 97 21 B40113 Anti-hIL12 ant  42 100.0 97 21 B40113 Anti-hIL12 ant  43 100.0 97 21 B40113 Anti-hIL12 ant  44 100.0 97 21 B40113 Anti-hIL12 ant  45 100.0 98 14 R34279 Human TWR bind	y chain vari	98	8	44	4
44 100.0 62 16 R76969 44 100.0 73 21 Y64774 Human 5 EST x 44 100.0 84 21 Y64925 Human 5 EST x 100.0 87 17 R92997 Human 5 EST x 100.0 93 20 Y11665 Human 5 EST x 100.0 95 21 Y56646 Partial peptic 44 100.0 96 21 Y56844 Human 5 EST x 100.0 97 21 B40089 Anti-hIL12 ant 44 100.0 97 21 B40112 Anti-hIL12 ant 44 100.0 97 21 B40113 Anti-hIL12 ant 5 EST x 100.0 97 21 B40113 Anti-hIL12 ant 64 100.0 97 21 B40113 Anti-hIL13	an TNF bind	98	8	44	ũ
44 100.0 62 16 R76969 44 100.0 73 21 Y64774 . Human 5 EST x 100.0 84 21 Y64925 44 100.0 87 17 R92997 44 100.0 87 17 R92997 44 100.0 93 20 Y11665 . Human 5 EST x 100.0 93 20 Y16666 . Partial peptid 4 100.0 96 21 Y56646 . Partial peptid 4 100.0 97 21 B40089 . Anti-hIL12 ant 4 100.0 97 21 B40112 . Anti-hIL12 ant 5 EST x 100.0 97 21 B40112 . Anti-hIL12 ant 6 EST x 100.0 97 21 B40112 . Anti-hIL12 A	i-hIL12 ant	97	8	44	Ñ
44 100.0 62 16 R76969 44 100.0 73 21 Y64974 Human 5' EST x 44 100.0 84 21 Y64925 Human 5' EST x 44 100.0 87 17 R92997 Homologous second at 100.0 93 20 Y11665 Human 5' EST s 44 100.0 96 21 Y56646 Partial peptid 44 100.0 96 21 Y64844 Human 5' EST s 44 100.0 96 21 Y64844 Human 5' EST s 44 100.0 97 21 B40089 Anti-hIL12 ant	i-hIL12 ant	97	8	44	تز
44 100.0 62 16 R76969 44 100.0 73 21 Y64774 . Human 5 EST x 100.0 84 21 Y64925 . Homologous seq 44 100.0 87 17 R92997 . Homologous seq 44 100.0 93 20 Y11665 . Human 5 EST x 100.0 96 21 Y56646 . Partial peptida 44 100.0 96 21 Y56646 . Partial peptida 44 100.0 96 21 Y56646 . Human 5 EST x 100.0 96 21 Y56646 . Human 5 EST x 100.0 96 21 Y56646 . Human 5 EST x 100.0 97 21 B40089 . Human 5 EST x 100.0 97 21 B40089 . Human 5 EST x 100.0 97 21 B40089 . Human 5 EST x 100.0 97 21 B40089 . Human 5 EST x 100.0 97 21 B40089 . Human 5 EST x 100.0 97 21 B40089 . Human 5 EST x 100.0 97 21 B40089 . Human 5 EST x 100.0 97 21 B40089 . Human 5 x 100.0 97 21 B4008	i-hIL12 ant	97	8	44	0
44 100.0 62 16 R76999 44 100.0 73 21 Y64774 . Human 5 EST x 44 100.0 84 21 Y64925 . Homologous seq 44 100.0 87 17 R92997 . Human 5 EST x 44 100.0 93 20 Y11665 . Human 5 EST x 100.0 95 21 Y56646 . Partial peptid 44 100.0 96 21 Y56848 . Human 5 EST x 5 EST x 6 EST	i-hIL12 ant	97	8	44	Φ
44 100.0 62 16 R76969 HSV-neutralisal 44 100.0 73 21 Y64774 Human 5' EST x 44 100.0 84 21 Y64925 Human 5' EST x 44 100.0 87 17 R92997 Homologous sec 44 100.0 93 20 Y11665 Human 5' EST x 44 100.0 95 21 Y56646 Partial peptid	an 5' EST r	96	8	44	œ
44 100.0 62 16 R76969 HSV-neutralisi 44 100.0 73 21 Y64774 Human 5 EST x 44 100.0 84 21 Y64925 Human 5 EST x 44 100.0 87 17 R92997 Homologous sec 44 100.0 87 17 R92997 Homologous sec	ial pepti	96	8	44	7
44 100.0 62 16 R76969 HSV-neutralisi 44 100.0 73 21 Y64774 Human 5 EST x 44 100.0 84 21 Y64925 Human 5 EST x 44 100.0 87 17 R92997 Homologous see	n 5'EST s	93	8	44	Ó
44 100.0 62 16 R76969 HSV-neutralisin 44 100.0 73 21 Y64774 · Human 5' EST re 44 100.0 84 21 Y64925 Human 5' EST re	gous sec	87	8	44	ij,
44 100.0 62 16 R76969 HSV-neutralisin 44 100.0 73 21 Y64774 · Human 5' EST re	n 5' EST re	84	8	44	4
44 100.0 62 16 R76969 HSV-neutralisin	5' EST re	73	8	44	w
	V-neutralisin	62	00.	44	N

## ALIGNMENTS

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RESULT
Y79127
Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antilecer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                             Synthetic.
                                                                              03-AUG-1998;
                                                                                                   28-JUL-1999;
                                                                                                                       17-FEB-2000.
                                                                                                                                           WO200007609-A1
                                                                                                                                                                                                                                                         Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                             05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                   Y79127;
                                                                                                                                                                                                                                                                                                                     Y79127 standard; Peptide; 8 AA.
                                                                              98US-0127815
                                                                                                   99WO-US16683
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RESULT
W86096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This present sequence is that of a peptide antagonist of zonulin CC (2), one of 25 such peptides (see Y79105-29) of the invention, CC which bind to a zonula occludens toxin (ZOT) receptor, yet do not CC (TJ). The peptide antagonists are based on a common mortif of ZOT CC and human zonulins, which is believed to be critical for receptor CC and human zonulins, which is believed to be critical for receptor CC antinflammatory agents in the treatment of gastrointestinal CC antinflammation, where they bind to the ZOT receptor in the intestine CC inflammation, where they bind to the ZOT receptor in the intestine CC increased intestinal permeability and the opening of TJ in the CC caused by infection, e.g. Clostridium difficile infection, cc caused by infection, bacterial overgrowth, whisple's disease with CC collagenous colitis, inflammatory bowel disease, diseases with CC correction of congenital heart disease with Fontan's gastric cancer, correction of congenital heart disease with Fontan's observation, e.g. congenital intestinal intestinal intestinal conditions, e.g. macroidosis lymphoma, mesenteric tuberculosis, and after surgical coeliac disease, essinophilic gastroenteritis, and immune diseases, cc milk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                          14-APR-1998;
21-MAY-1997;
31-JUL-1997;
28-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                 (BIOV-) BIOVATION LTD
                                                                                                                                             21-MAY-1998;
                                                                                                                                                                       26-NOV-1998
                                                                                                                                                                                                 W09852976-A1
                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                          Peptide from humanised A33 heavy chain variable region.
                                                                                                                                                                                                                                                              Non-immunogenic;
                                                                                                                                                                                                                                                                                                                    03-MAR-1999
                                                                                                                                                                                                                                                   immunoglobulin;
                                                                                                                                                                                                                                                                                                                                                 W86096;
                                                                                                                                                                                                                                                                                                                                                               W86096 standard; peptide; 13 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GGGLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                          ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                       999lvqpg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  h 100.0%; ; Similarity 100.0%; ; 8; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          æ
                                                        98GB-0007751.
97GB-0010480.
97GB-0016197.
97GB-0025270.
97US-0067235.
                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                       98WO-GB01473.
                                                                                                                                                                                                                                       ; epitope; T-cell; immunogenicity; immune system;
therapeutic; streptokinase; diagnosis; human; A3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69pp; English
                                                                                                                                                                                                                                streptokinaše; diagnosis; human; A33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 44; DB 21;
Pred. No. 3.2e+05;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
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Вb
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i .

Reducing immunogenicity sequence of the protein of a given species

of proteins - by modifying the amino acid to eliminate potential epitopes for T-cells

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Query Match
Best Local S
Matches 8
                                                                                        14 - APR-1998;
21 - MAY-1997;
31 - JUL-1997;
28 - NOV-1997;
02 - DEC-1997;
WPI; 1999-045301/04.
                                                       (BIOV-) BIOVATION LTD.
                                                                                                                                                                               21-MAY-1998;
                                                                                                                                                                                                            26-NOV-1998
                                                                                                                                                                                                                                       W09852976-A1
                                                                                                                                                                                                                                                                           Non-immunogenic; epitope; T-cell; immunogenicity; immune system; immunoglobulin; therapeutic; streptokinase; diagnosis; human; A33,
                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                          Peptide from
                                                                                                                                                                                                                                                                                                                                                                       03-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a method for the production of non-immunogenic proteins. The method comprises determining at least part of the amino acid sequence of the protein; (b) identifying in the amino acid sequence of the protein; (c) identifying in the amino acid sequence one or more potential epitopes for T-cells (T-cell epitopes) of the given one of the T-cell epitopes for more of the protein when the protein with the immunogenicity of the protein when exposed to the immunogenicity of the protein when exposed to the immune protein to predict the basis for immunogenic responses is also provided. The immunoglobulins or therapeutic proteins, e.g. Streptokinase. The products peptides from humanised A33 heavy chain variable region predicted by
                                                                                                                                                                                                                                                                                                                                                                                                      W86076;
                                                                                                                                                                                                                                                                                                                                                                                                                      W86076 standard; peptide; 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Reducing immunogenicity sequence of the protein of a given species
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 5; Page 34; 77pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 100.
les 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-045301/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6 9991vqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GGGLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   £.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13 AA;
                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                         humanised A33 heavy chain variable region.
                                                                                  98GB-0007751.
97GB-0010480.
97GB-0016197.
97GB-0025270.
97US-0067235.
                                                                                                                                                                         98WO-GB01473.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of proteins - by modifying the amino acid to eliminate potential epitopes for T-cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 44;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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Example

5; Page 33; 77pp; English

Sequence

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The invention relates to a method for the production of non-immunogenic proteins. The method comprises determining at least part of the amino acid sequence of the protein; (b) identifying in the amino acid sequence one or more potential epitopes for T-cells (T-cell epitopes) of the given species; and (c) modifying the amino acid sequence to eliminate at least one of the T-cell epitopes identified in step (b) thereby to eliminate or reduce the immunogenicity of the protein when exposed to the immunogenicity of the protein when exposed to the immunogenic system of the given species. A method of analysing a pre-existing protein to predict the basis for immunogenic responses is also provided. The methods can be used particularly for reducing the immunogenicity of immunoglobulins or therapeutic proteins, e.g. Streptokinase. The products can be used for diagnosis and therapy. Sequences W86075-W86114 represent peptide theading.

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RESULT
W86088
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Matches 8
                                                                                                                                                                14-APR-1998;
21-MAY-1997;
31-JUL-1997;
28-NOV-1997;
02-DEC-1997;
The invention relates to a method for the production of non-immunogenic proteins. The method comprises determining at least part of the amino acid sequence of the protein; (b) identifying in the amino acid sequence one or more potential epitopes for T-cells (T-cell epitopes) of the give
                                                                    of a given
                                                                             sequence
                                                                                     Reducing
                                                                                                         WPI; 1999-045301/04
                                                                                                                                                                                                                          21-MAY-1998;
                                                                                                                                                                                                                                             26-NOV-1998
                                                                                                                                                                                                                                                                W09852976-A1
                                                                                                                                                                                                                                                                                                              Non-immunogenic;
                                                                                                                                                                                                                                                                                                                                 Peptide from humanised A33 heavy chain variable region.
                                                                                                                                                                                                                                                                                                                                                    03-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                        W86088;
                                                                                                                                                                                                                                                                                                                                                                                         W86088 standard;
                                                                                                                                             (BIOV-) BIOVATION
                                                                                                                                                                                                                                                                                                    immunoglobulin;
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|ggglvqpg 13
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8; Conservative
                                                                  immunogenicity of of the protein to en species
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                                                                                                                                                                 97GB-0016197.
97GB-0025270.
97US-0067235.
                                                                                                                                                                                             98GB-0007751
97GB-0010480
                                                                                                                                                                                                                          98WO-GB01473
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                                                                                                                                                                                                                                                                                                    therapeutic;
                                                                                                                                                                                                                                                                                                    epitope; T-cell; immunogenicity; immu:
therapeutic; streptokinase; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                         peptide;
                                               77pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.0%;
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                                                English
                                                                            proteins - by modifying the amino acid eliminate potential epitopes for T-cells
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Pred. No. 0.2;
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                                                                                                                                                                                                                                                                                                    immune system;
osis; human; A3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
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sequence
the given
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repeated use.

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RESULT
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                                       This sequence represents a fragment of the IgG heavy chain. This sequence was isolated using the biomedical device of the invention, which comprises: (a) a biocompatible support; and (b) conglutinin which is covalently bound to the support. The device can be used for removing immune complexes (IC) from a fluid. This can be used for treating a mammal or for evaluating the status of a mammal. It can be used for treating diseases such as serum sickness, chronic immune complex nephritis, bacterial infections, viral infections, parasitic diseases, autoimmune diseases or neoplastic diseases. The devices can also be used for purification of IC and to study immune pathogenesis and antigens associated with a disease state. The covalently immobilised conglutinin can capture IC with high capacity and specificity and allows elution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               species; and (c) modifying the amino acid sequence to eliminate at least one of the T-cell epitopes identified in step (b) thereby to eliminate or reduce the immunogenicity of the protein when exposed to the immune system of the given species. A method of analysing a pre-existing protein to predict the basis for immunogenic responses is also provided. The methods can be used particularly for reducing the immunogenicity of immunoglobulins or therapeutic proteins, e.g. Streptokinase. The products can be used for diagnosis and therapy. Sequences W86075-W86114 represent pertides from humanised A33 heavy chain variable region predicted by
                                                                                                                                                                                                                                                                                           New biomedical device for binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IgG heavy chain; immune complex removal; conglutinin; infection;
serum sickness; chronic immune complex nephritis; parasitic disease;
autoimmune disease; neoplastic disease; immune pathogenesis; therapy
                           can capture IC with high capacity and specificity and under mild conditions. The devices are stable with no
                                                                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-MAR-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9506254-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                              (IMMU-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                24-AUG-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IgG heavy chain fragment, IgG (VH) (18).
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                                                                                                                                                                                                                                                                                                                                               1995-106945/14.
                                                                                                                                                                                                                                                            4; Fig 11; 58pp; English.
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8; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94WO-US09407.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
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solid phase material
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pathogenesis; therapy
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                                                                                                                                                                                                                                                                                                               comprising
                             loss of IC binding
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Sequence

18

8

Query Match Best Local

100.0%;

Score 44; DB 1 Pred. No. 0.28;

DB 16;

Length 18;

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Query Match
Best Local Similarity
""tokes 8; Conserv
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                                                                                                                                                    R82833 and R82834 represent the N-terminal sequences of the heavy chain cand light chain of an anti-human influenza A type virus antibody. The antibody these sequences were obtained from was isolated from hybridoma CC C179. The antibody recognises the stem region of the haemaglutinin (HA) CM molecule of the H1N1 and H2N2 subtypes of human influenza A type virus, and shows neutralisation activity against these two subtypes. The CX antibody shows no recognition of the H3N2 subtype. The DNA encoding the CX variable heavy chain sequence (see T04159) and the variable light chain CX coding sequence (see T04160) are useful in the production of artificial antibodies and antigen-binding polypeptides. These artificial antibodies are useful in the diagnosis and treatment of human CX and polypeptides are useful in the diagnosis and treatment of the HA CX changes. This provides an advantage over current vaccines, as the virus CX periodically alters it's HA molecule.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
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                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                         Gene encoding variable region of anti-human influenza A type virus antibody - useful for prodn. of artificial antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          haemagglutinin; variable light chai complementarity determining region.
                                                                                                                                                                                                                                                                                                                                                                                                  Example 2; Page 24; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1995-338286/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TAKI ) TAKARA SHUZO CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-MAR-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-terminal of C179 heavy chain.
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                             1 GGGLVQPG
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8; Conserv
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                                                         100.0%; ilarity 100.0%; Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95EP-0301664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    influenza type A virus; H1N1; H2N2; H3N2; HA; diagnosis;
variable light chain; therapy; CDR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ikunoshin K, Takashi T,
                                                         0;
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                                                      Score 44; DB 16; Length 18; Pred. No. 0.28; Mismatches 0; Indels
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Score 44; DB 2 Pred. No. 0.31; Mismatches

DB 20; 0,

Length 20; Indels

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RESULT
W94487
ID W9
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                                                                                                                                                                                                                                                                                                                    The present invention describes pure zonulin which has an apparent molecular weight of 47 kD, as determined by SDS-PAGE, which is recognised by both anti-tau polyclonal antibody and by anti-zonula occludens toxin (ZOT) polyclonal antibody, and is capable of reversibly opening mammalian tight junctions. Zonulin proteins function as physiological modulators of mammalian tight junctions. They can be used for enhancing the absorption of therapeutic agents across tight junctions of intestinal and nasal mucosa and across tight junctions of intestinal and nasal mucosa and with agents such as drugs, and interaction barrier. Zonulin can be used with agents which as drugs,
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New purified zonulin - which is capable of reversibly opening mammalian tight junctions, used for enhancing the delivery of agents across intestinal and nasal mucosa and blood brain barrier
                                          peptide of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 2; Page 45; 64pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-070123/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zonulin; mammalian tight junction; zonula occludens toxin; ZO Vibrio cholerae; vaccine; cholera toxin; polyclonal antibody; intestinal mucosa; nasal mucosa; blood brain barrier.
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                                          zonulin.
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RESULT
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                                                                                                                                                                                                                                                                                                                                          Query Match
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Matches 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is that of the N-terminal region of adult human heart zonulin. The N-terminal sequences of human adult and foetal zonulins (see Y79130-36) were compared with Vibrio cholerae zonula occludens toxin (20T) to identify a common motif thought to be involved in receptor binding. Peptide antagonists (see Y79105-29) based on this motif are useful as antiinflammatory agents for treatment of gastrointestinal inflammation, and for treatment of conditions associated with breakdown of the blood-braintestinal treatment of conditions associated with breakdown of the blood-braintestinal treatment of conditions associated with breakdown of the blood-braintestinal conditions as a condition 
                            Humanised antibody; interleukin-5; IL-5; recombinant antibody; antibody engineering; monoclonal antibody; MAb; 39D10; CDR; complementarity determining region; heavy chain; framework;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeliosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zonulin; antagonist; zonula occludens to human; blood-brain barrier; antiinflammu gastrointestinal inflammation; therapy.
               eosinophilia;
                                                                                                                                                                                             R87049 standard;
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                                                                                                 Human group III heavy chain framework 1.
                                                                                                                                 25-JUN-1996
                                                                                                                                                                R87049;
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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| ggglvqpg 15
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ilarity 100.0%;
Conservative
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                                              Waldmann H,
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                                                                                                              21-JUL-1998;
                                                                                                                                            21-JUL-1999;
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                                                                                                                                                                                                                                          Homo sapiens
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Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 8; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Complementarity determining region; CDR; rat; immunoglobulin G; IgG; CD3 antigen complex; chimeric antibody; immunosuppression; heavy chain; CD3 antigen-T-cell receptor complex; graft rejection; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Framework regions (R87049-52) of human group III (gp3) germ 1: antibody heavy chain showed homology to corresponding regions (R87053-56, respectively) of the rath-human interleukin-5 monoclonal antibody 39D10 heavy chain (see R87039). This home was utilised in the prodn. of a humanised 39D10 VH (R87058) in which rat 39D10 VH complementarity determining regions were guitable to the complementarity determining regions and the complementarity determining regions were guitable to the complementarity determining the complementarity determining the complementarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-human IL-5 recombinant antibody reducing eosinophilia and for treating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                framework region.
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INT LTD.
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Pred. No. 0.
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequences without complementarity determining regions (CDRS). The sequences are used to produce the antibodies of the invention. The specification describes chimenric human/rodent anti-CD3 antibodies, which have a rodent anti-CD3 immunoglobulin G (19G) light chain variable region and a human heavy chain variable region. The anti-CD3 antibodies can render T-cells non-functional by antibody blockade of the CD3 antigen-T-cell receptor (TCR) complex. They can used for immunosuppression, particularly for the control of graft rejection. The antibodies can also enhance or re-direct T-cell responses to antigens. They can be used in the treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New humanized anti-CD3 antibodies, used for treating cancer or for
immunosuppression and preventing graft rejection -
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                                                                                                                                                                                                                                   Monoclonal:antibody obtd. from hybrid cells - used immune:assay of plasminogen activator tissue obtd. human embryo pulmonary cells w.r.t.
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                                                                                                                               Sequence
                                                                                                                                                           Monoclonal antibodies raised to the plasminogen activator antigen may be used in isolation or detection of pure {\tt PA}.
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ggglvqpg
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                                                                                                                                                                                                         Page 849; 9pp; Japanese.
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Mismatches
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Best Local S
Matches 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                diagnosis; neutralisation;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSV-neutralising antibody clone Fab fragment heavy chain variable
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Human; 5' EST; expressed sequence tag; secreted protein; diagnosis; gene therapy; chromosome mapping; upstream regulatory sequence; forensic; location; development; protein synthesis; stability; regulation; identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 4; Page 60; 100pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human monoclonal antibodies that neutralise Herpes simplex virus (HSV) types 1 and 2 - used for diagnosis and passive immuno-ther.
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8; Conserv
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                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DR,
                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                   polypeptide
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                                                                                                                                                                                        73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 I; type II; monoclonal antibody;
                                                                                                                                                                                                                                                                                                                                        0;
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                                                                                                                                                                                                                                                                                                                                        Score 44; DB
Pred. No. 0.9
0; Mismatches
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                                                                                     SEQ ID NO:935.
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                                                                                                                                                                                                                                                                                                                                                       DB 16;
0.93;
                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                     Length 62;
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RESULT
Y64925
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CC sequences, corresponding to human secreted proteins. Y64651 to Y65438
CC represent the EST-related proteins corresponding to 242265 to 243052.
CC The 5' ESTs can be used for producing secreted human gene products.
CC and upstream regulatory regions which control the location, development country and upstream regulatory regions which control the location, development country rate, and quantity of protein synthesis, as well as stability of mRNA. The ESTs are also useful as probes for chromosome mapping, and to cobtain full length cDNA clones. The ESTs can also be used in forensic corrections to identify individuals, or in diagnostic procedures to identify individuals having genetic diseases resulting from abnormal country individuals having senetic diseases resulting from abnormal countr
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                      Human; 5' EST; expressed sequence tag; secreted protein; diagnosis; gene therapy; chromosome mapping; upstream regulatory sequence; forenaic; location; development; protein synthesis; stability;
                                       regulation;
                                                                                                                                              Human 5'
                                                                                                                                                                                       01-FEB-2000
                                                                                                                                                                                                                                                                      Y64925 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diagnostic,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-038446/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dumas Milne Edwards J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-APR-1998;
28-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 638; 837pp; English
                                                                                                                                         EST related polypeptide SEQ ID NO:1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73
                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
ilarity 100.0%;
Conservative 0
                                       identification
                                                                                                                                                                                     (first entry)
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98US-0069047.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 44; DB 21;
Pred. No. 1.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence tag sequences used in and chromosome mapping procedures
                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
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                                                                                                                                                                                                                                                                                 RESULT
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They can be used to identify and isolate 5 untranslated regions (UTRs) and upstream regulatory regions which control the location, development stage, rate, and quantity of protein synthesis, as well as stability of mRNA. The ESTs are also useful as probes for chromosome mapping, and to obtain full length cDNA clones. The ESTs can also be used in forensic procedures to identify individuals, or in diagnostic procedures to protein synthesis as the products of identify individuals, or in diagnostic procedures to identify individuals, or in diagnostic procedures to the products may also be used in gene therapy protocols. The nucleic acids encoding signal peptides can be used for directing extracellular secretion of a polypeptide or the insertion of a polypeptide into a membrane, or importing a polypeptide into a cell. The proteins encoded by the EST sequences may be useful in treating a variety of human conditions. Secreted proteins have therapettic value, and the identification of new secreted proteins is valuable. 242249 to 242264 and Y04644 to Y06650 represent sequences used in the
                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 8
                                                            IOR-T1; monoclonal antibody; human; mouse; heavy chain; homology variable region; framework; cloning; computer; algorithm; immunogenicity; site-directed mutagenesis; T-lymphocyte epitope; tertiary structure; point mutation; antibody engineering;
                                                                                                                                                Homologous sequences to antibody IOR-T1 variable region heavy chain
                                                                                                                                                                                                                 R92997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Z42265 to Z43075 represent novel 5' expressed sequence tag (EST) sequences, corresponding to human secreted proteins. Y64651 to Y65438 represent the EST-related proteins corresponding to Z42265 to Z43052.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel secreted protein 5' expressed sequence tag sequences used in diagnostic, forensic, gene therapy, and chromosome mapping procedures
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28-APR-1998;
                 Homo sapiens
                                                                                                                                                                                18-MAY-1996
                                                                                                                                                                                                                                                  R92997 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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8; Conser
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98US-0069047.
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                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                humanised antibody;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  present invention.
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Pred. No. 1.2;
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                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                             homology;
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The sequence represents residues from a human immunoglobulin with CC homology to the heavy chain variable region from mouse monoclonal CC antibody IOR-T1 (R92996). The sequence is partial, and ccomplementarity determining regions are omitted. The sequence is complementarity determining regions are omitted. The sequence is CC isolated by comparison of human and mouse immunoglobulins and CC analysis for T-lymphocyte antigenic sequences using a computer CC algorithm. Residues not within a complementarity determining region, CC algorithm. Residues not within a complementarity determining region, CC immunogenicity in humans (e.g. in sequence R92999). This method, CC immunogenicity in humans (e.g. in sequence R92999). This method, CC of mouse antibodies the introduction of only a few point mutations into CC of mouse antibodies. The resulting humanised antibodies may be used CC e.g. as antitumour agents. They retain the antigen recognition of the CC original antibody, but are not immunogenic in humans.
Search completed: June 13, 2001, 14:25:44 Job time: 663 sec
                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 8; Conserv
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Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Identifying interspecies differences in amino acid sequence of Ig T-cell epitopes - by sequence comparison, also humanised antibodies contg. altered T-cell epitopes, retaining antigen specificity but not immunogenicity, esp. for tumour treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mateo de Acosta del Rio CM, Rodriguez RP, Valladares JL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Region
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                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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8 ggglvqpg 15 .
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Listing first 45 s
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      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
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Match
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Gapop 10.0 ,
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Compugen Ltd
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44 100.0 100 2 \$26925 Ig heavy 44 100.0 100 2 \$26926 Ig heavy 44 100.0 101 2 PU0003 Ig heavy 44 100.0 101 2 PU0002 Ig heavy 44 100.0 105 2 \$38488 Ig heavy 44 100.0 105 2 \$38488 Ig heavy 44 100.0 105 2 \$24521 Ig heavy 44 100.0 106 2 \$24521 Ig heavy 44 100.0 111 1 MHMS76 Ig heavy 44 100.0 111 2 PH1028 Ig heavy 44 100.0 111 2 \$69911 Ig heavy 44 100.0 111 2 \$69911 Ig heavy 44 100.0 111 2 \$13693 Ig heavy 44 100.0 112 2 \$13693 Ig heavy 44 100.0 113 1 AVMS61 Ig heavy 44 100.0 113 1 AVMS61 Ig heavy 44 100.0 113 1 AVMS61 Ig heavy 46 100.0 113 1 AVMS61 Ig heavy 47 100.0 113 1 AVMS61 Ig heavy 48 100.0 113 1 AVMS61 Ig heavy 49 100.0 113 1 AVMS61 Ig heavy 40 100.0 113 1 AVMS61 Ig heavy 41 100.0 113 1 AVMS61 Ig heavy 42 100.0 113 1 AVMS61 Ig heavy	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	
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Ig heavy chain V regions (3-24 and 5-14) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 31-Jul-1989 #sequence_revision 31-Jul-1989 #text_change 30-May-1997
C;Accession: D31485
R;Bedzyk, W.D.; Johnson, L.S.; Riordan, G.S.; Voss Jr., E.W.
J. Biol. Chem. 264, 1565-1569, 1989
A;Title: Comparison of variable region primary structures within an anti-fluorescein A;Reference number: A31485; MUID:89109167
A;Accession: D31485
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-36 < ABED>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
A;Molecule type: mRNA
A;Residues: 1-30 <ANS>
A;Coss-references: EMBL:X73019
A;Cross-references: EMBL:X73019
C;Superfamily: lnmunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;1-38/Domain: immunoglobulin homology (fragment) <IMM>
                                                                                                                                                                                        A;Cross-references: EMBL:X73019
A;Experimental Source: Strain BALB/c
R;Ansell, K.H.
submitted to the EMBL Data Library, April 1993
A;Reference number: S36376
                                                                                                                                                                                                                                                                                                                            Eur. J. Immunol. 23, 206-21, 1993
A;Title: Optimization of primers for cloning
A;Reference number: S33391; MUID:93122092
A;Accession: S33402
A;Molecule type: mRNA
A;Residues: 1-38 <KET>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S33402
Ig heavy chain V region - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Species: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change 17-Jul-1998
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change 17-Jul-1998
C;Accession: S33402; S36385
C;Accession: S33402; S36385
T Ansell K H : Bendiq, M.M.
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D31485
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           K.H.; Bendig, M.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2;
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A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 3-43 < KET>
A; Cross-references: EMBL:X73012
A; Experimental source: strain BALB/c
C; Superfamily: immunoglobulin V region; immunoglobulin homology
C; Keywords: heterotetramer; immunoglobulin
F; 14-59/Domain: immunoglobulin homology (fragment) < IMM>
                Query Match
Best Local Similarity
Thehes 8; Conserv
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A; Molecule type: mRNA
A; Residues: 1-59 < ANS>
A; Cross-references: EMBI: x73012; NID: 9295879; PIDN: CAA51498.1; PID: 9939941
R; Kettleborough, C.A.; Saldanha, J.; Ansell, K.H.; Bendig, M.M.
Eur. J. Immunol. 23, 206-211, 1993
A; Title: Optimization of primers for cloning libraries of mouse immunogloba; Reference number: S33391; MUID: 93122092
A; Accession: S33396
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A:Reference number: S36376
A:Accession: S36381
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C:Sepcles: Mus musculus (house mouse)
C:Date: 19-Mar_1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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R;Currier, S.J.; Gallarda, J.L.; Knight, K.L.
J. Immunol. 140, 1651-1659, 1988
A;Title: Partial molecular genetic map of the rabbit V-H
A;Reference number: A27606; MUID:88154464
A;Accession: A27606
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A; Residues: 1-59 < CUR>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ig heavy chain V-a region (p26.9p2) - rabbit (fragments) c;Species: Oryotolagus cuniculus (domestic rabbit) C;Date: 08-Mar-1989 #sequence_revision 30-Jun-1991 #text_change 16-Aug-1996 C;Accession: A27606
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8; Conserv
                                   Conservative
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Pred. No. 0.
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Pred. No. 0.18;
0; Mismatches 0
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Pred. No. 0.12;
                              Mismatches
                                               DB 2; Length 59; 0.18;
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Ig heavy chain V region (BFL1) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change
                                                                                                                                                                                                                                                                                                                             Ig heavy chain precursor V-III region (Ab21) - human
C;Species: Homo sapiens (man)
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 09-May-1997
C;Accession: C34964
R;Sanz, I.; Casali, P.; Thomas, J.W.; Notkins, A.L.; Capra, J.D.
J. Inmunol. 142, 4054-4061, 1989
A;Title: Nuclectide sequences of eight human natural autoantibody V-H regions reveals A;Reference number: A92830; MUID:89235232
A;Accession: C34964
A;Molecule type: mRNA
A;Residues: 1-82 <SAN-
A;Coross-references: GB:M26996
A;Note: the sequence shown differs from the authors' translation after residue 56
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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A;Experimental source: strain BALB/c
C;Superiamily: immunoglobulin V region; immunoglobulin I C;Keywords: heterotetramer; immunoglobulin F;8-60/Domain: immunoglobulin homology (fragment) <IMM>
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Best Local Similarity
"hes 8; Conserv
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A; Residues: 1-60 < ANS>
A; Cross-references: EMBL: X73011; NID: 9295878; PIDN: CAA51497.1; PID: 9939940
R; Kettleborough, C.A.; Saldanha, J.; Ansell, K.H.; Bendig, M.M.
Eur. J. Immunol. 23, 206-211, 1993
A; Title: Optimization of primers for cloning libraries of mouse immunoglobulin A; Reference number: S33391; MUID: 93122092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
A; Residues: 1-33 <KET>
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A;Reference number: S36376
A;Accession: S36382
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C;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
C;Accession: S36382; S33397
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S36382
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1 GGGLVQPG 8
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8; Conserv
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Pred. No.
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Pred. No. 0.1
); Mismatches
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0.19;
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  16-Aug-1996
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C:Species: Mus sp. (mouse)
C:Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jan-2000
C:Accession: 167527
R:Chies, J.A.: Lembezat, M.P.; Freitas, A.A.
Eur. J. Immunol. 24, 1657-1664, 1994
A:Title: Entry of B lymphocytes into the persistent cell pool in non-immuni: A:Reference number: 153392; MUID:94298870
A:Accession: 167527
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167528
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R;Lawler, A.M.; Lin, P.S.; Gearhart, P.J.
Proc. Natl. Acad. Sci. U.S.A. 84, 2454-2458, 1987
A;Title: Adult B-cell repertoire is blased toward two
A;Reference number: A94148; MUID:87175692
A;Accession: D25913
                                                                        A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues; 1-95 «RES»
A;Cross-references: GB:S71351; NID:g550039
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A;Residues: 1-94 <RES>
A;Cross-references: GB:S71357; NID:g550040
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Eur. J. Immunol. 24, 1657-1664, 1994
A;Title: Entry of B lymphocytes into the persistent cell
A;Reference number: 153392; MUID:94298870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Mus sp. (mouse)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jan-2000
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A; Residues: 1-94 < LAW>
                                     A; Gene:
                                                           C; Genetics:
                                                                                                                                                                                                                                                                                                   CD33 antigen homolog - mouse (fragment)
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A;Status: preliminary; translated from
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                     ;Gene: Ig VHX24a
;Superfamily: 1m
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nes 8; Conserv
family: immunoglobulin V region; immunoglobulin homology
/Domain: immunoglobulin homology <IMM>
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Pred. No. 0.2
0; Mismatches
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Pred. No. 0.29;
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Ig heavy chain V region (anti-DNA, III-3R) - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 16-Aug-1996
C;Accession: PH0872
C;Accession: PH0872
A;Mile: Molecular characteristics of antibodies bearing an anti-DNA-associated idiot
A;Title: Molecular characteristics of antibodies bearing an anti-DNA-associated idiot
A;Reference number: PH0862; MUID:92078875
A;Accession: PH0872
A;Molecule type: DNA
A;Residues: 1-97 <MAN>
A;Residues: 1-97 <MAN>
A;Residues: 1-97 <MAN>
A;Residues: 1-97 immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin homology
F;30-35/Region: complementarity-determining 1
F;49-66/Region: complementarity-determining 2
                                                                                        A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-5,'Q',7-12,'H',14-97 <TOM2>
A;Residues: 1-5,'Q',7-12,'H',14-97 <TOM2>
A;Cross-references: EMBL:Z12344; NID:g32908; PIDN:CAA78214.1; PID:g32909
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-97/Domain: immunoglobulin homology <IMM>
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A; Residues: 1-97 < TOM1>
A; Cross-references: EMBL: Z12344
R; Tomlinson, M.
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A;Title: The repertoire of human germline V(H) sequence A;Reference number: $26885; MUID:93021117
A;Accession: $26885
A;Status: preliminary
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C;Species: Homo sapiens (man)
C;Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 23-Jul-1999
C;Accession: $26885; $36596
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Pred. No.
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Pred. No. 0.3;
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GGGLVQPG

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Ig heavy chain V region (YAC-5) - human (C.Species: Homo sapiens (man) (C.Species: Homo sapiens (M.F.; Walter, G.; Riethman, H.; Carter, N.P.; Buluwela, L.; Wir Nature Genet. 7, 162-168, 1994 (M.F.; Matter) (H.) Hocus completed by analysis of the telom A.Reference number: S46460; MUID:95004581
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S46462
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R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G.
J. Mol. Biol. 227, 776-798, 1992
A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups of A;Reference number: S26885; MUID:93021117
A;Scession: S26890
A;Status; preliminary
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A; Residues: 1-97 < TOM>
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C;Species: Homo sapiens (man)
C;Date: 22-NoV-1993 #sequence_revision 10-NoV-1995 #text_change 23-Jul-1999
C;Accession: S26890
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R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G. J. Mol. Biol. 227, 776-798, 1992

A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups A;Reference number: S26885; MUID:93021117

A;Accession: S26895
                                                                                                                                                                                                                                                                                                                                                                                         Ig heavy chain V region (DP-52) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 *sequence_revision 10-Nov-1995 *text_change 23-Jul-1999
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A;Molecule type: DNA
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A;Residues: 1-97 <COO>
A;Cross references: EMBL:227504; NID:9505430; PIDN:CAAB1824.1; PID:9505431
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
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## ALIGNMENTS

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InterPro; IPR003006; -. Pfam; PF00047; ig; 1. Immunoglobulin V region. NOW_TER 11 11 111 SEQUENCE 111 AA; 12304
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MEDLINE-81013937; PubMed=6251474;

Bernard O., Gough N.M.;

Bernard O., Gough N.M.;

"Nucleotide sequence of immunoglobulin heavy chain joining seg between translocated VH and mu constant regions genes.";

Proc. Natl. Acad. Sci. U.S.A. 77:3630-3634(1980).

-:- MISCELLANEOUS: THE SEQUENCE OF THE FIRST 197 RESIDUES OF TRESIDUES O
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SEQUENCE.
MEDLINE-78158406; PubMed-417344;
Vrana M., Rudikoff S., Potter M.;
                                                                                                                                         Mus musculus (Mouse).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus NCBI_TaxID-10090;
[1]
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
1G HEAVY CHAIN V-III REGION HPC76 (FRAGMENT).
Mus musculus (Mouse).
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InterPro; IPRO3006; -
Pfam; PF00047; 19; 1.
Immunoglobulin V region.
22 98
                  HV29_MOUSE STANDARD; PRT; 113 AA. P01798; P1798; 21-JUL-1986 (Rel. 01, Created) 21-JUL-1986 (Rel. 01, Last sequence update) 15-JUL-1999 (Rel. 38, Last annotation update) IG HEAVY CHAIN V-III REGION E109.
Mis musculus (Mouse).
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Proc. Natl. Acad. Sci. U.S.A.
-1- MISCELLANEOUS: THIS CHAIN
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Vrana M., Rudikoff S., Potter M.;
"Sequence variation among heavy chains from inulin-binding
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P01797;
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Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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IG HEAVY CHAIN V-III REGION U61.
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Proc. Natl. Acad. Sci. U.S-1- MISCELLANEOUS: THIS CH
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CHAIN WAS ISOLATED FROM A MYELOMA
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S CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN
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                                                                                                                                                              Score 44; DB 1;
Pred. No. 0.16;
0; Mismatches
Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
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Pred. No. 0.1
0; Mismatches
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RESULT .

HV31_MOUSE
ID HV31_MOUSE STANDAN...
AC P01800;
DT 21-JUL-1986 (Rel. 01, Created)
DT 01-OCT-1993 (Rel. 27, Last seque
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Best Local Similarity 100
Matches 8; Conservative
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Best Local Similarity
Matches 8; Conserv
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P01799; STANDARD; PRT; 113
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence upda
15-JUL-1999 (Rel. 38, Last annotation upda
IG HEAVY CHAIN V-III REGION ABE-47N.
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Immunoglobulin V region.
22 98 BY STALL STA
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Pfam; PF00047; 19; 1
Immunoglobulin V region.
DISULFID 22 98
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Vrana M., Rudikoff S., Potter M.;
"Sequence variation among heavy chains fr proteins";
Proc. Natl. Acad. Sci. U.S.A. 75:1957-196
-: MISCELLANEOUS: THIS CHAIN WAS ISOLATE
BINDS INULIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biochemistry 16:1170-1175(1977).
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Vrana M., Rudikoff S., Potter M.;
"Heavy-chain variable-region sequence
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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WAS ISOLATED FROM A
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Mus musculus (Mouse). Eukaryota; Metazoa; Chordata; Mammalla; Eutheria; Rodentia;

Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus

15-JUL-1999 (Rel. 38, Last annotation update)
IG HEAVY CHAIN V-III REGION T957.

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RESULT 7
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ID 721-JUL
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InterPro; IPR003006; -.
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Immunoglobulin v region.
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InterPro; IPR003006; -.
Pfam; PF00047; 1g; 1.
Immunoglobulin V region.
DISULFID 22 98
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p01803;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up:
15-JUL-1999 (Rel. 38, Last annotation IG HEAVY CHAIN V REGION AMPC1.
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RudikOff S., Potter M.;
"Immunoglobulin heavy chains from anti-inulin myeloma evidence for a new heavy chain joining segment.";
J. Immunol. 127:191-194(1981).
-I- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYEL
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J. Immunol. 127:191-194(1981).
-I- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYEN
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Immunoglobulin heavy chains
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IG HEAVY CHAIN V-III REGION W3082.
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Eukaryota; Metazoa; C
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Johnson N., Slankard J., Paul L.,
"The complete V domain amino acid
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Johnson N., Slankard J., Paul L.,
                                                                                                                                        J. Immunol. 128:302-307(1982).
                                                                                                                                                binding proteins."
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Sciurognathi; Muridae;
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                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDILINE-82059449; PubMed=6795591;
Ollo R., Auffray C., Sikorav J.-L., F
"Mouse heavy chain variable regions:
germ-line VH gene segment.";
Nucleic Acids Res. 9:4099-4109(1981).
EMBL;
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J. Biol. Chem. 252:7192-7199(1977).
-1- MISCELLANEOUS: THE SEQUENCES OF THE V REGIONS OF THE HEAVY CHAINS OF IGM AND IGG2 ISOLATED FROM A SINGLE PATIENT WITH BICLONAL GAMMOPATHY ARE IDENTICAL. THEIR LIGHT CHAINS ARE APPARENTLY ALSO
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HOMO sapiens (Human).
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-JUL-1999 (Rel. 38, Last annotation
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Immunoglobulin V region.
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InterPro.; IPR003006; -
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                                                   21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V REGION MOPC 47A.
                                            Mus musculus (Mouse)
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SEQUENCE
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                                                                                                                                                                                                                                                                                                               hypervariable regions.";
Proc. Natl. Acad. Sci. U
-!- MISCELLANEOUS: THIS
                                                                                                                                                                                                                                                                                                                                          "Variable region sequences of five human immunoglobulin of the VH3 subgroup: definitive identification of four P
                                                                                                                                                                                                                                                                                                                                                              Capra J.D., Kehoe
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                                                                                                                                                                                                                                                                the European Bioinformatios Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                        Matthysens G., Rabbitts T.H.; "Structure and multiplicity of genes for the human immunoglobulin heavy chain variable region."; proc. Natl. Acad. Sci. U.S.A. 77:6561-6565(1980).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Immunoglobulin V region; Signal.
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EMBL; M35415; AAA58735.1;
PIR; A02047; H3HU26.
InterPro; IPR003006; -.
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MEDLINE-81101090; PubMed-6450418;
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HSSP; P01789; 2MCP.
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J. Biol. Chem. 254-11418-11430(1979).

-I- MISCELLANEOUS: THIS ALPHA CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN THAT CONTAINS ONE LIGHT AND ONE HEAVY CHAIN PER WOLECULE, LINKED BY A DISULFIDE BOND. IN CONTRAST, NORMAL MOUSE IGA MOLECULES CONTAIN TWO LIGHT AND TWO HEAVY CHAINS AND LACK A LIGHT-HEAVY CHAIN DISULFIDE BOND.
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Pred. No. 0.1
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PIR; A02059; GlHUWS.
HSSP: P01772; ZIG2.
InterPro; IPR003006; .
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Immunoglobulin V region.
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hypervariable regions.";
Proc. Natl. Acad. Sci. U.S.A. 71:845-848(1974).
"" WYSCRILANEOUS: THIS CHAIN WAS ISOLATED FROM AN IGG1 MYELOMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-74142702; PubMed-4522793;
Capra J.D., Kehoe J.M.;
"Variable region sequences of five human immunoglobulin heavy chains of the VH3 subgroup: definitive identification of four heavy chain
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

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## SUMMARIES

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## ALIGNMENTS

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01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
PROLACTIN-BINDING PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cohen H., Cohen O., Gagnon J.;
"Serum protactin-binding protein (PRL-BP) of human and rat are identified as IgG.";
C. R. Acad. Sci., III, Sci. Vie 317:293-298(1994).
HSSP; P01789; 1MCP.
SEQUENCE 15 AA; 1469 MW; 35ED2512FF3FA369 CRC64;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.

NCBI_TaxID=10118;
Homo sapiens (Human).
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Best Local
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01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation updat
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIAB
        Eukaryota;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
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Mammalia; Eutheria; Primates; Catarrhini;
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"Human VH gene sequence.";
Submitted (NOV-1999) to the
EMBL; AB035268; BAA87067.1;
HSSP; P01772; 2FB4.
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Mammalia; E
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Q9UL93; O1-MAY-2000 (TrEMBLrel. 13,
01-MAY-2000 (TrEMBLrel. 13,
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                            MYOSIN-REACTIVE
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MEDLINE-98277139; PubMed-9614934;
Wu X., Liu B., Van der Merwe P.L.,
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Mammalia; Eutheria;
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01-WAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
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MEDLINE-98277139; PubMed-9614934;
MEDLINE-98277139; PubMed-9614934;
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INTERPRO; IPR003006; -.
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Young D.C.;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                               ED57FDD19086D07F CRC64;
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                                                                                                                                                                                                                                                                                            41;
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rheumatic
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1.9;
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 Q9UL84;
Q9UL84;
01-MAY-2000
01-MAY-2000
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Q9UL71;
01-MAY-2000
01-MAY-2000
01-OCT-2000
                                                                                                                                                                                                                                                                      [1]
SEQUENCE FROM N.A.
MEDLINE=98277139; PubMed=9614934;
MEDLINE=98277139; Van der Merwe P.L.,
                                                                                                                                                                    NON_TER
NON_TER
SEQUENCE
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MEDLINE-98277139; PubMed-9614934;
Mu X., Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human).
Eukaryota; Metazoa; C
Mammalia; Eutheria; P
                                                                                                                                                                                                                                                                                                                                                           01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-CT-2000 (TrEMBLrel. 15, Last sequence update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Young
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Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                         Wu X., Liu B., Van der Merwe P.L.,
Young D.C.;
"Myosin-reactive autoantibodies in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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[1]
                                                                                                                                                                                                            INTERPRO;
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                                                                                                                                                                                                                                                   fetus."
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nes 7; Conserv
                                                                              1 GGGLVQPG 8
|||:||||
8 GGGVVQPG 15
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|||:||||
7 GGGVVQPG 14
                                                                                                                                                                                                          P01772; 2FB4.
PRO; IPR003006; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D.C.
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                                                                                                                     Similarity 87. 7; Conservative
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121 AA;
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 (TrEMBLrel. 13, (TrEMBLrel. 13,
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                               PRELIMINARY;
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13154 MW;
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Primates;
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Primates;
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87.5%;
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Created)
Last sequ
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                               PRT;
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  sequence update)
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3.1;
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Q9S2V7

PRELIMINARY;

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RESULT
Q9S2V7
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01-NOV-1999
01-OCT-2000
                                                                                                                                  NON_TER
SEQUENCE
                                                                                                                                             "A CD10-positive subset of malignant cells is myeloma using PCR with patient-specific immuno Leukemia 9:1948-1953(1995).
EMBL: S80866; AAD14339.1; -.
HSSP: P01772; 2FB4.
INTERPRO; IPRO03006; -.
PFAM; PF00047; ig; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE-98277139; PubMed-9614934;
Wu X., Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE=96071149; PubMed=7475288;
Cao J. Vescio R.A., Rettig M.B.,
Lichtenstein A.K., Berenson J.R.,
Lichtenstein A.K.,
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SEQUENCE
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                                                                                    Similarity 7; Conserv
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122 AA;
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13579 MW;
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Primates;
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15768 MW;
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Last sequence update)
Last annotation update)
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Pred.
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                                                                                                                                   8489FCAAA7BC925C CRC64;
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SEQUENCE
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                                                                                                                                                                                                                  PFAM; PF00047;
                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.

MEDLLNE=98277139; PubMed=9614934;

Mu X., Liu B., Van der Merwe P.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
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Saunders D.C.,
Submitted (AUG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Redenbach M., Kleser H.M., Denapaite D., Eichner A., (Kinashi H., Hopwood D.A.; Kinashi H., Hopwood D.A.; ** Aset of ordered cosmids and a detailed genetic and the 8 Mb Streptomyces coelicolor A3(2) chromosome. **, Mol. Microbiol. 21:77-96(1996).

EMBL; AL109663; CAB52008.1; **.
                                                                                                                                                                                                                                                                                                                                    Myosin-reactive autoantibodies
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                                          Local
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STRAIN=A3(2);
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Streptomyces coelicolor.
Streptomyces coelicolor.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Streptomycineae; Streptomycetaceae; Streptomyces.
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
HYPOTHETICAL 17.2 KDA PROTEIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GGGLVQPG
                                                                                                                                                                                                                                                                                                                                                                         D.C.;
               Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 7; Conserv
                                                                                                                                                                                                                                        IPR003006; -.
                                                                                                                                           131
131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      al protein.
168 AA; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O.C., Harris
(AUG-1999)
                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                           AA;
                                                                                                                                                                                                           ig; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                      14142 MW;
                                    90.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17181 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Barrell B.G., Rajandream M.A., the EMBL/GenBank/DDBJ databases
     Score 40; DB 4
Pred. No. 5.1;
1; Mismatches
                                                                                                                                                                                                                                                                               87:184-192(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata;
Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                 96E7D668E375DEA0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D950A20F2267097B CRC64;
                                                                                                                                                                                                                                                                                                                                      in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                 rheumatic
                                                                                                                                                                                                                                                                                                                                                                                   Kalis N.N.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA.
                                                       4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ب
                                                                                                                                                                                                                                                                                                                                 carditis
       0;
                                                       Length 131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                 Berney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 168;
       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGION (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo.
                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                 S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                physical map
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cullum
                                                                                                                                                                                                                                                                                                                                 normal
     0
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Gaps
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QUESTION
ACCONS
DT 00
DT 01
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Q9R1A4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
               PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9QYF0
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single chain antibody (SCFV)."
Submitted (MAY-1999) to the EM
EMBL; AF152372; AAD40243.1; -.
HSSP; P01842; 7FAB.
INTERPRO; IPR003006; -.
PFAM; PF00047; 1g; 4.
                                                                                                                                                                                                                                 Q9R1A4;
Q9R1A4;
01-MAY-2000
01-MAY-2000
01-CCT-2000
                                                                                                     Wilde K.G., Yu X., Ekramoddoullah A.K.M., "Cloning of cDNNs encoding for anti-white antibody (Mab 7, its light and heavy chair
                                                                                                                                                                                                       01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-OCT-2000 (TrEMBLrel. 15, GAMMA1 HEAVY CHAIN OF MAB7 Mus musculus (Mouse)
                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                   NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AB036341; BAA88633.1; -. HSSP; P01607; 1REI. INTERPRO; IPR003006; -. PFAM; PF00047. i-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1)
SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-SPLEEN;
Chinohara N., Demura T., Fukuda
Chinohara N., The EMBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9QYF0;
01-MAY-2000
01-MAY-2000
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           shinohara N., Demura T., Fukuda H.;
"Isolation of a novel type of vascular cell wall-specific monoclonal
antibody recognizing a cell polarity using a phage display subtracti
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PFAM; PF00047;
SEQUENCE 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-BALB/C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse).
Eukaryota; Metazoa; C
Mammalia; Eutheria; R
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                            47 GGGLVKPG 54
                                                                                                                                                                                                                                                                                                                                                          1 GGGLVQPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SCFV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGLVKPG
                                                                                                                                                                                                                                                                                                                                                                                            7; Conserv
00047; 19; 4.
PS00290; IG_MHC; UNKNOWN_1.
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                     )47; ig; 2.
298 AA; 31867 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0 (TrEMBLrel. 13,
0 (TrEMBLrel. 13,
0 (TrEMBLrel. 15,
                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                      90.98;
                                                                                                                                                                                                                    (FRAGMENT).
                                                                      EMBL/GenBank/DDBJ
                                                                                                                                                                                                                            Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                        Created)
                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL/GenBank/DDBJ databases
                                                                                                                                                                            Craniata; Vertebrata; ; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                      Score 40;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                   E0F96B8A17004317
                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Η.,
                                                                                                     .K.M., Misra
-white pine b
/ chains) and
                                                                                                                                                                                                                                                                                437
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                                                                                                        and
                                                                               databases
                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                    blister rust
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                                                                                                                                                                                                                                                                                                                                                                                                             Length 298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRC64;
                                                                                                     construction
                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                            Euteleostomi;
Murinae; Mus
                                                                                                                 monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   subtraction
                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                     õ
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SOUDE TARRES BEAR A SOURCE TO SOURCE
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          RA Addms M.D., Ceniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Addms M.D., Ceniker S.E., Holt R.A., Ewans C.A., Gocayne J.D.,
RA Addms M.D., Ceniker S.E., Holt R.A., Ewans C.A., Golle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Barandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Berker J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dohnes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Cherry J.M., Cawley S., Dohnes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Cherry J.M., Cawley S., Dohnes M., Dugan-Rocha S., Dukov B.C., Dunn P.,
RA Cherry J.M., Cawley S., Dohnes M., Dugan-Rocha S., Dukov B.C., Dunn P.,
RA Cherry J.M., Cawley S., Dohnes M., Dugan-Rocha S., Pielsohmann W.,
Fosler C., Gabriellian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Lisko P., Lei Y., Levitsky A.A., Li J., Li, Lingy D., Lai Z.,
RA Lisko P., Lei Y., Levitsky A.A., Li J., Li, Lingy D., Lai Z.,
RA Lisko P., Lei Y., Levitsky A.A., Li J., Li, Lingy D., Lai Z.,
RA Merial S.M., Modara C.D., Kraft C., Kraft Z., Kulp D., Lai Z.,
RA Merial S.M., Woldra R., Nixon K., Nussokern D.R., Paeleb J.M.,
RA Palazolo M., Pittman G.S., Pan S., Pollard J., Puri Y., Reese M.G.,
RA Palar R., Welson K.A., Vixon K., Nusokern D.R., Paeleb J.M.,
RA Palar R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 7; Conser
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-20196006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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437
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed=10731132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48142
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; CG14982.
80099 MW;
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1; Mismatches
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Search completed: June 13, 2001, 14:29:42 Job time: 543 sec

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SEQUENCE
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"Flagellin gene variation between clinical and environmental
of Burkholderia pseudomallel contrasts with the invariance and
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STRAIN-E956;
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Bacteria; Proteobacteria; beta subdivision; Burkholderia group;
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d. Microbiol. 47:689-694(1998).
AF030241; AAC27443.1; -.
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Maximum Match 100%
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       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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1: /cgn2_6/ptodata/2,
2: /cgn2_6/ptodata/2,
3: /cgn2_6/ptodata/2,
4: /cgn2_6/ptodata/2,
5: /cgn2_6/ptodata/2,
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Match Length
     PCT-US01-05825A-23
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1.953 Million cell updates/sec
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US-08-467-282B-119
US-08-467-282B-119
US-08-467-292B-119
US-08-468-739C-119
US-08-470-739C-75
US-08-129-930B-75
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Sequence 66, Appl
Sequence 42, Appl
Sequence 65, Appl
Sequence 55, Appl
Sequence 14, Appl
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Sequence 24, Appl
Sequence 27, Appl
Sequence 80, Appl
Sequence 80, Appl
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Sequence 80, Appl
Sequence 119, Appl
Sequence 75, Appl
Sequence 77, Appl
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Sequence 133, App	Sequence 134, App	Sequence 129, App	Sequence 117, App	Sequence 3, Appli	Sequence 3, Appli	Sequence 21, Appl	Sequence 17, Appl	Sequence 4, Appli	Sequence 4, Appli	Sequence 48, Appl	Sequence 31, Appl	Sequence 48, Appl	Sequence 37, Appl	Sequence 116, App	Sequence 105, App	Sequence 21, Appl	Sequence 126, App	

ALIGNMENTS

#### ; TOPOLOGY: 1: ; MOLECULE TYPE: US-08-331-398A-66 US-08-331-398A-66 NAME: Hunter, Tom REGISTRATION NUMBER: 38,498 REFERENCE/DOCKET NUMBER: 0152 TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 543-9600 TELEPHONE: (415) 543-5043 INFORMATION FOR SEQ ID NO: 66: Sequence 66, Applicati Patent No. 5608039 GENERAL INFORMATION: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk. COMPUTER: IEM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Vers CURRENT APPLICATION DATA: APPLICATION UMBER: US/08/331,398A FILING DATE: 28-OCT-1994 CLASSIFICATION UMBER: US 07/767,331 FRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/767,331 FRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/767,331 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/767,331 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/596,289 FILING DATE: 12-OCT-1990 ATTORNEY/AGENT INFORMATION: APPLICANT: Pai, Lee APPLICANT: Pai, Lee TITLE OF INVENTION: Single Chain B3 Antibody Fusion Proteins TITLE OF INVENTION: and Their Uses (as amended) NUMBER OF SEQUENCES: 68 STREET: One PULL STREET: San Francisco CITY: San Francisco STATE: California SEQUENCE CHARACTERISTICS: ADDRESSEE: Townsend APPLICANT: Pastan, Ira APPLICANT: Willingham, Mark APPLICANT: FitzGerald, David APPLICANT: Brinkmann, Ulrich TYPE: STRANDEDNESS: LENGTH: 1 66, AF 5 40 5608039 RY: USA 94105-1492 amino acid Application US/08331398A E: Townsend and Townsend and Crew One Market Plaza, Steuart Street Plaza 15 amino acids linear Release #1.0, Version #1.30 015280-126110US

DB 1; Length 15;

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RESULT 3
US-08-331-3978-66
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Patent No. 59817
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                                                               GENERAL INFORMATION:
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GENERAL INFORMATION:
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      APPLICANT: Pastan, APPLICANT: Benhar, TITLE OF INVENTION: TITLE OF INVENTION:
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INFORMATION FOR SEQ ID NO:
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LENGTH: 15 amino acids
TYPE: amino acid
                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/652,558
FILING DATE: JUNE 6, 1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/IB94/00387
FILING DATE: NOVEMBER 21, 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 617-345-9100
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MEDIUM TYPE: 3.5 inch diskette, 1.4 Mb storage
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TITLE OF INVENTION: HUMANALE
TITLE OF INVENTION: THEREOF
TAPOHENCES: 52
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REFERENCE/DOCKET NUMBER: 95,497-L
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WordPerfect 6.1
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75 STATE STREET, 231
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Chimeric and Mutationally Stabilized Tumor-
Specific Antibody Fragments, Fusion Proteins,
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Pred. No. 0.094;
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                                                                                                                                                                                                                                                                                            Patent No.
GENERAL IN
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                         Sequence 65, Application US/08759804A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 543-9600
TELEFAX: (415) 543-5043
INFORMATION FOR SEQ ID NO: 66:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                             'APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend
                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: Townsend and Townsend and Crew
STREET: One Market Plaza, Steuart Street Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, VACURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/331,397B
FILING DATE: 28-0CT-1994
                                                                               CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                               STREET:
                                                                   COUNTRY:
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8 GGGLVQPG 15
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STATE: California
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                                                                                                                                                                                                                                                                                              INFORMATION:
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FitzGerald, Davi
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Brinkmann, Ulrich
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                                                                                                            Townsend and Crew LLP Center, Eighth Floor
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PC-DOS/MS-DOS

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INFORMATION FOR SEQ ID NO: 65
SEQUENCE CHARACTERISTICS:
SERVICTOR 15 amino acids
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Best Local Similarity 100.0%;
Matches 8; Conservative (
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                                                                                                                                                     ZIP: 94105-1492
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 015
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
NAME: Webber, Ellen L.
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET_NUMBER: 015280-126140US
                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                         APPLICANT: Pastan, Ira
APPLICANT: Hillingham, Mark
APPLICANT: FitzGerald, David
APPLICANT: Brinkmann, Ulrich
APPLICANT: Pai, Lee
TITLE OF INVENTION: Single Chain B3 Antibody Fusion Proteins
TITLE OF INVENTION: and Their Uses (as amended)
                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 68
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew
STREET: One Market Plaza, Steuart Street Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear MOLECULE TYPE: peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 28-OCT-1994 PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                  APPLICATION NUMBER: US/08/331,398A FILING DATE: 28-OCT-1994 CLASSIFICATION: 435
                                                                                                                                                                                                                                       CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07/767,331 FILING DATE: 30-SEP-1991
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SOFTWARE: Patenti
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ID NO: 65:
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Pred. No. 0.094;
0; Mismatches
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Matches 8; Conserv
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                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                        TELEPHONE: 202-371-8850
                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Warren m. Cheek, J.
REGISTRATION NUMBER: 33,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/4
FILING DATE: March 10, 1995
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM Compatible OPERATING SYSTEM: MS-DOS SOFTWARE: Wordperfect 5.1 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: YOShinobu OKUNO et al.
TITLE OF INVENTION: A DNA WHICH CI
TITLE OF INVENTION: ANTIBODY
NUMBER OF SEQUENCES: 36
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REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 543-9600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
NAME: Hunter, Tom
 MOLECULE TYPE: FOR ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Washington STATE: D.C.
                                TOPOLOGY:
                                                          TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: U.S.A.
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STRANDEDNESS:
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                                                                              CENGTH:
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805 Fifteenth Street, N.W., #700
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                             linear
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                peptide
                                            single
heavy chain of C179
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ER: 015280-126110US
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US-08-401-908-14

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US-08-759-804A-54
                                                                                             Query Match
Best Local Similarity 100.
""" 8; Conservative
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NAME: Hunter, Tom

REGISTRATION NUMBER: 38,498

REFERENCE, DOCKET NUMBER: 0152/
TELECOMMUNICATION: TOTORNATION:

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION 1543-9600
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Best Local Similarity 100.
                                                                                                                                                                                                                                                                                     TELEFAX: (415) 543-5043
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                       TYPE: and STRANDEDNESS:
STRANDEDNESS:
"OPOLOGY: linear
"VPE: peptide
                                                                                                                                                                                                             MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
NAME: Hunter, Tom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/331,397B
FILING DATE: 28-OCT-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION SEEP-1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Chimeric and Mutationally Stabilized Tumor-TITLE OF INVENTION: Specific Antibody Fragments, Fusion Proteins, and Uses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Pastan, Ira
APPLICANT: Benhar, Itai
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                                                                                      1 GGGLVQPG 8
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STATE: California
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                                                         GGGLVQPG 15
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o. 5981726
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                                                                                                                                                                                                                                                                    18 amino acids
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One Market Plaza, Steuart Street Plaza
                                                                                                                           100.0%; Score 44; DB 2; 100.0%; Pred. No. 0.11;
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                                                                                                               Mismatches
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                                                                                                                                        Length 18;
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CORRESPONDENCE ADDRESS:

OF SEQUENCES:

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RESULT 9
US-08-859-931A-2
                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Thes 8; Conserve
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                                                                                                                                                                                                                                                                                                                                                        US-08-759-804A-54
                                                                                                Sequence 2, Application US/08859931A Patent No. 5945510
                                                             GENERAL INFORMATION: APPLICANT: FASANO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/331,398
FILING DATE: 28-CCT-1994
PRIOR APPLICATION DATA:
APPLICATION UMMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 07/596,289
FILING DATE: 12-CCT-1990
ATTORNEY/AGENT INFORMATION:
NAME: US 07/596,289
FILING DATE: 12-CCT-1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (415) 576-03
INFORMATION FOR SEQ ID NO:
         APPLICANT: FASANO, Alessio
TITLE OF INVENTION: SUBSTAI
TITLE OF INVENTION: PHYSIOI
TITLE OF INVENTION: MAMMALI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 54, Application US/08759804A Patent No. 5990296
                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 18 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 03-DEC-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 68
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Tumor-Specific Antibody Fragments, TITLE OF INVENTION: Fusion Proteins, and Uses Thereof
                                                                                                                                                                                                                               1 GGGLVQPG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 32
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Weber,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: Two Embarcad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             California
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Willingham, Mark
: FitzGerald, David J.
: Brinkmann, Ulrich
                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFC., Ellen L., Ellen L., 32,762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UMBER: US/08/759,804A
03-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5) 576-0300
576-0300
NO: 54:
SUBSTANTIALLY PURE ZONULIN, PHYSIOLOGICAL MODULATOR OF MAMMALIAN TIGHT JUNCTIONS
                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          576-0200
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Pred. No. 0.11;
Mismatches
                                                                                                                                                                                                                                                                                           DB 2; Length 18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 113, Application US/08053451B Patent No. 5955584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 30,764
REFERENCE/DOCKET NUMBER: A-
TELECOMMUNICATION INFORMATION:
                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/053,451B
FILING DATE: 26-APR-1993
CLASSIFICATION: 424
                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Chen, Francis W. APPLICANT: Ditlow, Charles C. APPLICANT: Calenoff, Emanuel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: KIT, Gordon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                  JUMBER OF SEQUENCES:
                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
NAME: Halluin, Albert P. REGISTRATION NUMBER: 25,227 REFERENCE/DOCKET NUMBER: 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 2100 Penns
CITY: Washington,
                                                                                                                                                                                                                                         COUNTRY: USA
ZIP: 10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 21 MA
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 GGGLVQPG 15
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                                                                                                                                                                                                                                                                                           New York
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                                                                                                                                                                                                                                                                                                              1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2100 Pennsylvania Avenue, N.W., Suite 800 ishington, D.C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 MAY 1997
                                                                                                                                                                                                                                                                                                                                                                               ATHEROSCLEROTIC PLAQUE SPECIFIC
ANTIGENS, ANTIBODIES THERETO, AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           293-7060
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   7606-033-999
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Pred. No:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 80, Application US/08471780C Patent No. 5759808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                  FILING DATE: 21-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 93401310.3
FILING DATE: 21-MAY 1993
ATTORNEY/AGENT INFORMATION:
NAME: POTTER, Jane E.R.
REGISTRATION NUMBER: 33,332
REFERENCE/DOCKET NUMBER: 04958.0008
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO:
                                      TELEFAX: 202-408-4400 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/106,944
FILING DATE: 17-AUG-1993
APPLICATION NUMBER: FR 92402326.0
                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                    SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Casterman, Ceci.
APPLICANT: Hamers, Raymond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
                                      TELEPHONE: ZUL TO NO:
                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/01 FILING DATE: 06-JUN-1995 CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 1300 I S CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 2..3
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
nes 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
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LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION:
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26 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Casterman, Cecile
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                         202-408-4000
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100.0%; Pred. No.
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Gln"
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                                                                                                            04958.0008-00000
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TYPE: amino acid STRANDEDNESS: si

linear

single

// MOLECULE TYPE: protein
// ORIGINAL SOURCE:
// ORGANISM: Camelus dro
US-08-471-780C-80

Camelus dromedarius

Query Match 100.0%; Best Local Similarity 100.0%; Matches 8; Conservative (

0,

Score 44; Pred. No. Mismatches

DB 1;

Length 26; Indels

0;

8 GGGLVQPG 15 GGGLVQPG 8

Sequence 80, Application US/08467282B Patent No. 5800988

SENERAL INFORMATION:

NUMBER OF SEQUENCES: 1: CORRESPONDENCE ADDRESS:

CITY: Washington

STREET: ADDRESSEE:

E: Finnegan, Henderson, Farabow, Garrett & Dunner 1300 I Street, N.W.

COUNTRY:

20005-3315

APPLICANT: Casterman, Cecile APPLICANT: Hamers, Raymond TITLE OF INVENTION: Immunoglobulins Devoid of Light Chains

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8 GGGLVQPG

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Gaps
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                                                                                                             US-08-466-710C-80
                                                                                                                                 RESULT
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                                                                                                                                                                                                                                                                                                                     ; MOLECULE TYPE:
; ORIGINAL SOURCE:
; ORGANISM: Cam
US-08-471-282A-80
                                                                            Sequence 80, Application US/08466710C Patent No. 5874541
                                                                                                                                                                                                                                        Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                       Query Match
                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-471-282A-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY AGENT INFORMATION:
NAME: POTTET, Jane E.R.
REGISTRATION UNMBER: 33,332
REFERENCE/DOCKET NUMBER: 0495
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                       1 GGGLVQPG 8
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8 GGGLVQPG 15
                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 80, Application US/08471282A Patent No. 5840853
          APPLICANT: Casterman, Ceci
APPLICANT: Hamers, Raymond
TITLE OF INVENTION: Immuno
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC COMPUTER: COMPUTER: COMPUTER: COMPUTER: PC-DOS/MS-DOS ODERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTAN PATENTON DATA: APPLICATION NUMBER: US/08/471,282A FTI.ING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 06-JUN 1995
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/106,944
FILING DATE: 17-AUG-1993
APPLICATION NUMBER: FR 92402326.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 21-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: IMNUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Casterman, Cecile APPLICANT: Hamers, Raymond
                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Washington
STATE: D.C.
COUNTRY: USA
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                                            Casterman, Cecile
                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          26 amino acids
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                                                                                                                                                                                                                                                                                                                               Camelus dromedarius
                                                                                                                                                                                                                                                                                                                                                                                 linear
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21-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                             single
Immunoglobulins Devoid of Light Chains 130
                                                                                                                                                                                                                                           100.0%; Score 44; DB 2; 100.0%; Pred. No. 0.16;
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                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                           Length 26
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Query Match
Best Local Similarity
""" B; Conserve
           δ
1 GGGLVQPG 8
                              Conservative
                              100.0%; Score 44; DB 1; Length 26; 100.0%; Pred. No. 0.16;
                      Indels .
                    0;
                    Gaps
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; ORGANISM: US-08-467-282B-80

Camelus dromedarius

MOLECULE TYPE: ORIGINAL SOURCE:

TOPOLOGY: STRANDEDNESS:

linear protein

single

TELEPHONE: 202-408-400
TELEPAX: 202-408-4400
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:

80:

ENGTH:

l: 26 amino acids amino acid

TELECOMMUNICATION INFORMATION: TELEPHONE: 202-408-4000

04958.0008-00000

NAME: POTTET, Jane E.R.
REGISTRATION NUMBER: 33,332
REFERENCE/DOCKET NUMBER: 04

FILING DATE: 21-MAY-1993 ATTORNEY/AGENT INFORMATION:

UMBER: FR 93401310.3 21-MAY-1993

APPLICATION NUMBER:

APPLICATION NUMBER: FR 9: FILING DATE: 21-AUG-1992 PRIOR APPLICATION DATA:

APPLICATION NUMBER: US UO/100, APPLICATION NUMBER: 17-AUG-1993
FILING DATE: 17-AUG-1993
FILING DATE: FR 92402326.0

CLASSIFICATION: 536 PRIOR APPLICATION DATA:

APPLICATION NUMBER: FILING DATE: 06-JU

06-JUN-1995

US/08/467, 282B

SOFTWARE: Patentin Release #1.0, Version #1.25

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
COLUMNA DE COMPUTER: PC-DOS/MS-DOS

CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner STREET: 1300 I Street, N.W.

COUNTRY:

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CITY:
CITY:
CITY:
STATE: D.c.
STATE: D.c.
COUNTRY: USA
ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
TRATING SYSTEM: PC-DOS/MS-DOS
TRATING TYPE: Patentin Release #1.0, Ve-
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Best Local Similarity
Matches 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 17-AUG-1993
APPLICATION NUMBER: FR 92402326.0
FILING DATE: 21-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 93401310.3
FILING DATE: 21-MAY-1993
ATTORNEY/AGENT INFORMATION:
BOLLOW TROP
                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
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TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner STREET: 1300 I Street, N.W.
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ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 26 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                APPLICANT: Casterman, Cecile APPLICANT: Hamers, Raymond TITLE OF INVENTION: Immunoglu NUMBER OF SEQUENCES: 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
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8 GGGLVQPG 15
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CITY: Washington
STATE: D.C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
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ER: 04958.0008-00000
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Best Local Similarity
Matches 8; Conserv
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TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 26 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION DATA:
PRIOR APPLICATION UMBER: US 08/106,944
APPLICATION NUMBER: US 08/106,944
FILING DATE: 17-AUG-1993
FILING DATE: 17-AUG-1993
FILING DATE: 17-AUG-1993
                                                                                                                                                                         MOLECULE TYPE:
ORIGINAL SOURCE:
ORGANISM: Cam
                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 04
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 21-AUG-
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 21-MAY-1993
ATTÖRNEY/AGENT INFORMATION:
NAME: Potter, Jane E.R.
REGISTRATION NUMBER: 33,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/468,739C
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                       LENGTH: 26 amino
TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                              TOPOLOGY:
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                                1 GGGLVQPG 8
GGGLVQPG 15
                                                                     Conservative
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                                                                                                                                                                                                        protein
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                                                                 100.0%; Score 44; DB 3
100.0%; Pred. No. 0.16;
tive 0; Mismatches
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                                                                                                    DB 3;
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Search completed: June 13, 2001, 14:27:06 Job time: 627 sec

Gaps

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Result
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Maximum Match 100%
Listing first 45 s
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Maximum DB
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Perfect score:
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Match
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88.4
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1: /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*
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/SIDS6/gcgdata/geneseq/geneseqp/AA1990.DAT: *
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Y79126
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                                   Human MDC and huma
Nucellin-like aspa
Human SDF-1 and hu
Human MCP-3 and hu
Peptide antagonist
Peptide from human
                                                                                                                                                                                                                                            Description
                                                                                                                                                                                 Peptide antagonist
Peptide antagonist
                                                                                                                                                              Murine NEWM MN-14
from
human
human
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36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	ა 6	36	36	36	36	36	36	36
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98	98	98	98	86	98	98	98	98	98	98	98	98	98	98	86	97	97	97	97	96	96	93	87	84	73	62	40	30	30	20	20	18	18
21	21	21	21	21	21	21	21	21	21	21	19	16	15	15	14	21	21	21										21	17	21	20	16	16
Y56660	B40097	B40096	B40095	B40094	B40093	B40087	B40086	B40085	B40084	B40072	W59614	R72074	R54816	R52066	R34279	B40135	840112	B40092	B40089	Y64844	Y56646	Y11665	R92997	Y64925	Y64774	R76969	P61028	Y68811		Y79130	448	28	W73953
Partial peptide fr	Anti-hIL12 antibod	N	Anti-hIL12 antibod	Anti-hIL12 antibod	N	N	Anti-hIL12 antibod	Anti-hIL12 antibod	Anti-hIL12 antibod	-hIL12	Anti-RSV F protein	DP54 VH region. H	SpA-reactive VH re	μ.	Human TNF binding	hIL12	PIL1	hIL12	ntibo	5' EST rela	al peptide f	' EST	ogous sequen	Human 5' EST relat	ST rela	utral	n varīable	heavy chai	group	adult	lt heart	erminal of C17	IgG heavy chain fr

## ALIGNMENTS

RESULT Y79128

05-JUN-2000 (first entry)

Peptide antagonist of zonulin.

Y79128;

Y79128 standard; Peptide; 8

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hypotensive; immunosuppressive; antiparasitic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                          Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective dermatological; antiilcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                           03-AUG-1998;
                                                                                             28-JUL-1999;
                                                                                                                17-FEB-2000
                                                                                                                                    WO200007609-A1
                                                                                                                                                       Synthetic.
                                                      (UYMA-) UNIV MARYLAND BALTIMORE
                                                                           98US-0127815.
                                                                                             99WO-US16683
                                                                                                                                                                                  vasotropic;
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WPI; 2000-205565/18

New peptide antagonist of zonulin useful as antiinflammatory agent for

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CC (2), one of 25 such peptides (see Y99105-29) of the invention, CC (2), one of 25 such peptides (see Y99105-29) of the invention, CC which bind to a zonula occludents toxin (ZOT) receptor, yet do not (CC physiologically modulate the opening of mammalian tight junctions and human zonulins, which is believed to be critical for receptor compliant DNA techniques. The peptide antagonists are used as an inflammation, where they bind to the ZOT receptor in the intestinal conditions of physiologically modulate the opening of Tyin the conditions diverted by chemical synthesis or by use of and yet does not physiologically modulate the opening of Tyin the confidence intestine. Gastrointestinal inflammation conditions give rise to treating intestinal permeability and the peptide is useful for caused by infection, e.g. Clostridium difficule infection, confictions that cause protein losing enteropathy confidence infestinal conditions that cause protein losing enteropathy confidence infestion, bacterial overgrowth, whipple's disease, diseases with collapse of confidence infestinal inflammatory bowel disease, diseases with confidence correction of congenital heart disease with Fontan's operation, collapse collapse symphoma, mesenteric tuberculosis, and after surgical concerculated disease, each opening or fond allowance disease, collapses each operation, e.g. Menetries' disease, collapses, each opening or fond allowance diseases, collapses, each opening or fond allowance diseases, collapses, each opening or fond allowance diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                  Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                               (UYMA-) UNIV MARYLAND BALTIMORE
                                                                  03-AUG-1998;
                                                                                                                                                                 W0200007609-A1
                                                                                                                                                                                                    Synthetic
                                                                                                    28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                         05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                             Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Y79126 standard; Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating cerebral ischemia, stroke, shigellosis, viral gastroenteritis,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A,
                                                               98US-0127815
                                                                                              99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              erythematosus or food allergies, primarily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                              AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 43;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cerebral edema, gastritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
RESULT
R97334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                          Binding-site
                                                         Binding-site
                                                                                                                                                                                                                                                                                                             R97334;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fasano
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/label= CDR 2. 99..108 /label= CDR 3.

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This present sequence is that of a peptide antagonist of zonulin CC (2), one of 25 such peptides (see Y79105-29) of the invention, CC which bind to a zonula occludens toxin (ZOT) receptor, yet do not CC physiologically modulate the opening of mammalian tight junctions CC and human zonulins, which is believed to be critical for receptor CC binding. They can be prepared by chemical synthesis or by use of CC antiling. They can be prepared by chemical synthesis or by use of CC antiling. They can be prepared by chemical synthesis or by use of CC inflammation, where they bind to the zor receptor in the intestinal CC inflammation, where they bind to the zor receptor in the intestine CC intestine. Gastrointestinal inflammation conditions give rise to CC increased intestinal permeability and the peptide is useful for CC caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite collits, shigellosis, viral gastroenteritis, parasite collits, shigellosis, viral gastroenteritis, parasite collits, inflammatory bowel disease, diseases with collegenous collits, inflammatory bowel disease, diseases with collegenous collits, inflammatory bowel disease, diseases marked by sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, c.g. septimized and after surgical correction disease, without ulceration, e.g. Menettrier's disease, e.g. gastroenteritis, and immune diseases, c.g. e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                      Binding-site
                                                                                                                                                                                                                    Monoclonal antibody; humanised; mouse; framework region; FR; CDR; complementary determining region; anti-carcinoembryonic antigen; CEA; diagnosis; imaging; therapy; immune response.
                                                                                                                                                                                  Mus musculus
                                                                                                                                                                                                                                                                                                                                                                 Murine NEWM MN-14 variable region heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R97334 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 48; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GGGLVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        999cvqdg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A
/label= CDR 1.
50..66
                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein; 119 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 38; DB 21;
Pred. No. 3.2e+05;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ό,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Thes 7; Conserv
                                                                                                                                                                                                                                                                                                                        New humanised monoclonal antibodies (MAbs) comprising the complementary determining regions (CDRs) of a parental murine class III anti-carcinoembryonic (CEA) MAb engrafted to the framework regions (FRs) of a heterologous antibody which can be derived from any species including human, retain the anti-CEA binding specificity of the parental murine MAb but are less immunogenic in a human subject than the parental MAb. The humanised antibodies can be used in diagnosis, imaging and therapy of CEA-producing cancers and patients receiving the humanised antibodies and conjugates show improved therapeutic results, decreased immune responses and decreased immune-mediated adverse effects compared to the parent antibody. See R97313-97333 for the CDR sequence and framework
                                                                                                                           Chemokine; tumour; viral; antigen; fusion protein; cancer; vaccine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-OCT-1994;
                         12-MAR-1998;
                                                                          WO9946392-A1
                                                                                            Synthetic.
                                                                                                    Homo sapiens
                                                                                                                                               Human MDC and
                                                                                                                                                               17-NOV-1999
                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 5; Figure 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDRs, used for diagnosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1996-209653/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Armour KL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-APR-1996
       (USSH ) US DEPT HEALTH & HUMAN SERVICES
                                         12-MAR-1999;
                                                          16-SEP-1999
                                                                                                                     1mmune response;
                                                                                                                                                                                 Y29904;
                                                                                                                                                                                                                                                                                                                                        antibody. See R97313-97333 for regions of the humanised MAbs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New humanised anti-CEA monoclonal antibody - having engrafted murine CDRs, used for diagnosis, imaging and therapy of CEA-producing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (IMMU-) IMMUNOMEDICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9611013-A1
                                                                                                                                                                                                  129904 standard; Protein; 334 AA.
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                                                                                                                                                                                                                                           1 GGGLVQDG 8
|||||| |
| 3 ggglvqsg 15
                                                                                                                                                                                                                                                                                                                         119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hansen HJ;
                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                              (first entry)
                                                                                                                                             human scFV fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94US-0318157
                        98US-0077745.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95WO-US11964
                                         99WO-US05345
                                                                                                                                                                                                                                                                                      86.0%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             62pp; English.
                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                      Score
Pred.
                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                      37;
No.
                                                                                                                                                                                                                                                                                      DB
14;
                                                                                                                                                                                                                                                                                              17;
                                                                                                                                                                                                                                                                             1;
                                                                                                                                                                                                                                                                                              Length 119;
                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                     RESULT
B65728
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The present invention describes fusion proteins comprising a chemokine and a tumour antigen or HIV antigen. Specifically claimed fusion proteins comprise: (1) human monocyte chemotactic protein-3 (MCP-3) and human Muc-1; (2) human interferon induced protein 10 (IP-10) and human Muc-1; (3) human macrophage-derived chemokine (MCD) and human Muc-1; (4) human SDF-1 and human MCP-3 and SDF-1 and human MCP-3 and HIV gpl20; (7) human MCD and HIV gpl20; and (8) human SDF-1 and HIV 9pl20. The fusion proteins, and nucleotide sequences encoding them, can be used for producing an immune response, e.g. an effector T cell immune response. They can also be used for treating cancer or treating or preventing HIV infection. The fusion proteins and/or nucleotide sequences can be used in in vitro diagnostic assays, as well as in screening assays for identifying unknown tumour antigen epitopes and fine mapping of tumour antigen epitopes. The present sequence represents a specifically claimed fusion protein from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 7; Conser
Novel defender against cell death polynucleotide useful for modulating programmed cell death pathway and specific development pathways in forestry plant -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI;
                                                                                                                                                                                     Flinn B,
                                                                                                                                                                                                                                                                                                                        04-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                          02-JUN-2000; 2000WO-NZ00086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200075331-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pinus radiata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cell death modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B65728 standard; Protein; 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 73; Page 134-135; 142pp; English.
                                                                                                                                                                                                                                       (GENE-) GENESIS RES & DEV CORP LTD. (FLET-) FLETCHER CHALLENGE FORESTS
                                                                                                                                                                                                                                                                                                                                                                                                                                  14-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              forestry plant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nucellin-like aspartic protease #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         в65728;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New fusion polypeptides comprising a chemokine and a tumour antigen HIV antigen, used for treating cancers or treating or preventing HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kwak LW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           87 ggglvqsg 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GGGLVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   σ
                                                                                                         2001-061724/07
DB; F44754.
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                                                                                                                                                                                  Lasham A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                        99US-0325932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            86.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       programmed cell death;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 37; DB Pred. No. 40; 0; Mismatches
                                                                                                                                                                                                                                          LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 334;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
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RESULT
Y29905
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SXCCCCCCCXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 86.0
Best Local Similarity 100
Matches 7; Conservative
The present invention describes fusion proteins comprising a chemokine and a tumour antigen or HIV antigen. Specifically claimed fusion proteins comprise: (1) human monocyte chemotactic protein 3 (MCP-3) and human Muc-1; (2) human interferon induced protein 10 (IP-10) and human Muc-1; (3) human macrophage-derived chemokine (MDC) and human Muc-1; (4) human SDF-1 and human Muc-1; (5) human IT-10 and HIV 99120; (6) human MCP-3 and HIV 99120; (7) human MCP-3 and display and (8) human SDF-1 and HIV 99120. The fusion proteins, and nucleotide sequences encoding them, can be used for producing an immune response, eg. an effector T cell immune response. They can also be used for treating cancer or treating or preventing HIV infection. The fusion proteins and/or nucleotide sequences for identifying unknown tumour antigen epitopes and fine mapping of the function antitone who proceeds a well as in screening assays for identifying unknown tumour antigen epitopes and fine mapping of
                                                                                                                                                                                                                                       Claim 73; Page 136; 142pp; English.
                                                                                                                                                                                                                                                                              New fusion polypeptides comprising a chemokine and HIV antigen, used for treating cancers or treating infection .
                                                                                                                                                                                                                                                                                                                                          WPI; 1999-551418/46
                                                                                                                                                                                                                                                                                                                                                                           Kwak LW,
                                                                                                                                                                                                                                                                                                                                                                                                      (USSH ) US DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9946392-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chemokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human SDF-1 and human scFV fusion protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to coding sequences (see F44740-F44840 and F44843-F44844) and proteins (see B65714-B65814) involved in programmed cell death (PCD; apoptosis). The coding sequences and proteins of the present invention are useful for modulating a PCD or cell death pathway incorporating one of the pathways in a forestry plant, by stably incorporating one of the present coding sequences into the genome of the forestry plant, where the coding sequence provides a PCD pathway that is not present in a native form of the forestry plant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chemokine; tumour; viral; antige
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ¥29905;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y29905 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       domo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              285 ggglvqd 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GGGLVQD 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22;
                                                                                                                                                                                                                                                                                                                                                                      Biragyn A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          338 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0077745.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US05345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69; 142pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         viral; antigen; fusion protein; cancer; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    86.0%; >c
100.0%; pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 37;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 338;
                                                                                                                                                                                                                                                                                   a tumour antigen or prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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                                                                                                                                                                                                                                                                                                   or
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epitopes.

The present sequence represents a specifically

Query Match
Best Local Similarity
Thes 7; Conserve

AΑ

Conservative

0

Mismatches

86.0%;

Score 37; Pred. No.

20;

Length 348;

Indels

0

Gaps

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CC The present invention describes fusion proteins comprising a chemokine CC and a tumour antigen or HIV antigen. Specifically claimed fusion proteins CC comprise: (1) human monocyte chemotactic protein 3 (MCP-3) and human CC (1; (2) human interferon induced protein 10 (IP-10) and human Muc-1; (2) human macrophage-derived chemokine (MDC) and human Muc-1; (4) human SDF-1 and HIV gp120; (6) human MCP-3 and CC HIV gp120; (7) human MDC and HIV gp120; and (8) human SDF-1 and HIV gp120. The fusion proteins, and nucleotide sequences encoding them, can CC gp120. The fusion proteins, and nucleotide sequences encoding them, can CC be used for producing an immune response, e.g. an effector T cell immune CC response. They can also be used for treating cancer or treating or CC preventing HIV infection. The fusion proteins and/or nucleotide sequences CC can be used in in vitro diagnostic assays, as well as in screening assays CC identifying unknown tumour antigen epitopes and fine mapping of CC tumour antigen epitopes. The present sequence represents a specifically XX
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Y29903
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Best Local s
Matches 7
Sequence
                                                                                                                                                                                                                                                    Claim 73; Page 132; 142pp; English
                                                                                                                                                                                                                                                                                         New fusion polypeptides comprising a chemokine and a tumour antigen of treating cancers or treating or preventing HIV
                                                                                                                                                                                                                                                                                                                                             WPI; 1999-551418/46
                                                                                                                                                                                                                                                                                                                                                                        Kwak LW,
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                                                                                                                                                                                                                                                                                        infection
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chemokine;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human MCP-3 and human scFV fusion protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      response;
                                                                                                                                                                                                                                                                                                                                                                                                     SD
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                                                                                                                                                                                                                                                                                                                                                                     Biragyn A;
 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tumour; viral; antigen;
ponse; HIV; infection.
                                                                                                                                                                                                                                                                                                                                                                                                DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  339 AA;
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87.5%;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fusion protein; cancer; vaccine;
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1 GGGLVQDG 8 |||||| | 1 ggglvqsg 108

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RESULT
Y79127
                                                                          This present sequence is that of a peptide antagonist of zonulin (27), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (207) receptor, yet do not combined to be zonulated the opening of mammalian tight junctions (27). The peptide antagonists are based on a common motif of 207 cand human zonulins, which is believed to be critical for receptor combinant DNA techniques. The peptide antagonists are used as an canding. They can be prepared by chemical synthesis or by use of crecombinant DNA techniques. The peptide antagonists are used as an candinant DNA techniques. The peptide antagonists are used as an candinant DNA techniques. The peptide antagonists are used as an candinant DNA techniques. The peptide antagonists are used as an candinant peptide in the intestinal conditions of the intestinal conditions of the peptide is useful for cances of intestinal conditions that cause protein losing enteropathy conseed by infection, e.g. Clostridium difficile infection, caused by infection, e.g. Clostridium difficile infection, cancer, concertain or ulcerations, viral gastroenteritis, parasite collets, shigellosis, viral gastroenteritis, parasite collegeous collits, shigellosis, viral gastroenteritis, parasite collegeous collits, inflammatory bowel disease, diseases with concertain correction of congenital heart disease with frontan's operation, concertain conc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 48; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-205565/18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neuroprotective; dermatological; antiulcer; antiviral;
antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2onulin; antagonist;
blood-brain barrier;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UYMA-) UNIV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cerebroprotective;
                                                                allergies, primarily
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Sequence

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1 GGGLVQDG

Query Match
Best Local Similarity
Matches 7; Conser

Conservative

0;

83.7%; 87.5%;

Score 36; DB Pred. No. 2; 0; Mismatches

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Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                        14-APR-1998;
21-MAY-1997;
31-JUL-1997;
28-NOV-1997;
02-DEC-1997;
                                 The invention relates to a method for the production of non-immunogenic proteins. The method comprises determining at least part of the amino acid sequence of the protein; (b) identifying in the amino acid sequence one or more potential epitopes for T-cells (T-cell epitopes) of the given species; and (c) modifying the amino acid sequence to eliminate at least one of the T-cell epitopes identified in step (b) thereby to eliminate or reduce the immunogenicity of the protein when exposed to the immunogenicity of the protein when exposed to the immunogenicity of the protein when exposed to the immunogenic the protein of the given species. A method of analysing a pre-existing protein to predict the basis for immunogenic responses is also provided. The methods can be used particularly for reducting the immunogenicity of immunoglobulins or therapeutic proteins, e.g. Streptokinase. The products can be used for diagnosis and therapy. Sequences W86075-W86114 represent peptides from humanised A33 heavy chain variable region predicted by
                                                                                                                                                                                                                                                               Reducing immunogenicity sequence of the protein of a given species
                                                                                                                                                                                                                                      Example 5;
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Sequence
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                         threading
                                                                                                                                                                                                                                      Page 34; 77pp; English
13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapeutic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide; 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           epitope;
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87.5%;
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                                                                                                                                                                                                                                                                                proteins - by modifying the amino acid eliminate potential epitopes for T-cel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     heavy chain variable region.
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Pred. No. 3.
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                                                                                                                                                                                                                                                                              potential epitopes
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3.2e+05;
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Best Local Similarity
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        W86088 standard; peptide; 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a method for the production of non-immunogenic proteins. The method comprises determining at least part of the amino acid sequence of the protein; (b) identifying in the amino acid sequence one or more potential epitopes for T-cells (T-cell epitopes) of the given one of the T-cell epitopes identified in step (b) thereby to eliminate at least reduce the immunogenicity of the protein when exposed to the immune to predict the basis for immunogenic responses is also provided. The immunoglobulins or therapeutic proteins, e.g. Streptokinase. The products can be used particularly for reducing the immunogenicity of can be used for diagnosis and therapy. Sequences w86075-w86114 represent neptides from humanised A33 heavy chain variable region predicted by
                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reducing immunogenicity of proteins - by modifying the amino acid sequence of the protein to eliminate potential epitopes for T-cells
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21-MAY-1997;
31-JUL-1997;
28-NOV-1997;
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97GB-0016197.
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Pred. No.
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Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                           The invention relates to a method for the production of non-immunogenic proteins. The method comprises determining at least part of the amino acid sequence of the protein; (b) identifying in the amino acid sequence one or more potential epitopes for T-cells (T-cell epitopes) of the given one of the T-cell epitopes identified in step (b) thereby to eliminate or reduce the immunogenicity of the protein when exposed to the immune protein when exposed to the immune to predict the basis for immunogenic responses is also provided. The immunoglobulins or therapeutic proteins, e.g. Streptokinase. The products can be used particularly for reducing the immunogenicity of can be used for diagnosis and therapy. Sequences w86075-w86114 represent peptides from humanised A33 heavy chain variable region predicted by
                           IgG heavy chain fragment, IgG (VH) (18).
IgG heavy chain; immune complex removal; conglutinin; infection;
                                                                                       W73953;
                                                                                                          W73953 standard; peptide; 18
                                                            26-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14 - APR - 1998;
21 - MAY - 1997;
31 - JUL - 1997;
28 - NOV - 1997;
                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Reducing immunogenicity sequence of the protein of a given species
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 5; Page 33; 77pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carr
                                                                                                                                                                                                                                                                                                                          peptide threading.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-045301/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BIOV-) BIOVATION LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09852976-A1
                                                                                                                                                                            3 ggglvgpg :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Non-immunogenic; epitope; T-cell; immunogenicity; immune system; immunogiobulin; therapeutic; streptokinase; diagnosis; human; A33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide from humanised A33 heavy chain variable region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-MAR-1999
                                                                                                                                          12
                                                                                                                                                                                                       1 GGGLVQDG 8
                                                                                                                                                                                                                                                                                                 13 AA;
                                                                                                                                                                                                                                  Conservative
                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98GB-0007751.
97GB-0010480.
97GB-0016197.
97GB-0025270.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-0067235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-GB01473
                                                                                                                                                                                                                                            83.7%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of proteins - by modifying the amino acid to eliminate potential epitopes for T-cells
                                                                                                                                                                                                                                 0,
                                                                                                             Ā
                                                                                                                                                                                                                                           Score 36; I
Pred. No. 2;
                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                       20;
                                                                                                                                                                                                                                                      Length 13;
                                                                                                                                                                                                                             Indels
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RESULT 13
R82833
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                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This sequence represents a fragment of the IgG heavy chain. This sequence was isolated using the biomedical device of the invention, which comprises: (a) a biocompatible support; and (b) conglutinin which is covalently bound to the support. The device can be used for removing immune complexes (IC) from a fluid. This can be used for treating a mammal or for evaluating the status of a mammal. It can be used for treating diseases such as serum sickness, chronic immune complex nephritis, bacterial infections, viral infections, parasitic diseases, autoimmune diseases or neoplastic diseases. The devices can also be used for purification of IC and to study immune pathogenesis and antigens associated with a disease state. The covalently immobilised conglutinin can capture IC with high capacity and specificity and allows elution under mild conditions. The devices are stable with no loss of IC binding
                                                                                                                                 Antibody; human; influenza type A virus; HlN1; H2N2; H3N2; HA; diagnosis; haemagglutinin; variable light chain; therapy; CDR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New biomedical device for binding conglutinin covalently bound to a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     serum sickness; chronic immune complex nephritis; parasitic disease; autoimmune disease; neoplastic disease; immune pathogenesis; therapy
           14-MAR-1995;
                                      04-OCT-1995.
                                                               EP675199-A2
                                                                                         Mus musculus
                                                                                                                    complementarity
                                                                                                                                                                          N-terminal of C179 heavy chain.
                                                                                                                                                                                                     09-MAY-1996
                                                                                                                                                                                                                                R82833;
                                                                                                                                                                                                                                                         R82833 standard; Peptide; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 4; Fig 11; 58pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1995-106945/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-AUG-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9506254-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lee YM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (IMMU-) APPLIED
                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                       1 GGGLVQDG 8
                                                                                                                                                                                                                                                                                                                         ggglvqpg 15
                                                                                                                                                                                                                                                                                                                                                                                Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Odonoghue G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              after repeated use.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    18
                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                  (first entry)
           95EP-0301664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93US-0111071
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IMMUNE SCI INC.
                                                                                                                    determining region.
                                                                                                                                                                                                                                                                                                                                                                                             83.7%;
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                                                                                                                                                                                                                                                                                                                                                                                            2.8;
                                                                                                                                                                                                                                                                                                                                                                                                          16;
                                                                                                                                                                                                                                                                                                                                                                                                          Length 18
                                                                                                                                                                                                                                                                                                                                                                                Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R82833 and R82834 represent the N-terminal sequences of the heavy chain CC and light chain of an anti-human influenza A type virus antibody. The antibody these sequences were obtained from was isolated from hybridoma CC C179. The antibody recognises the stem region of the haemagglutinin (HA) CC molecule of the H1N1 and H2N2 subtypes of human influenza A type virus, CC and shows neutralisation activity against these two subtypes. The CC antibody shows no recognition of the H3N2 subtype. The DNA encoding the CC variable heavy chain sequence (see T04159) and the variable light chain CC coding sequence (see T04150) are useful in the production of artificial CC coding sequence (see T04160) are useful in the production of artificial CC coding sequence (see T04150) are useful in the diagnosis and treatment of human CC influenza. As the antibodies recognise the stem region of the HA cC conject. This provides an advantage over current vaccines, as the virus company of the that the provides and advantage over current vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                 W94487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gene encoding variable region of anti-human influenza antibody – useful for prodn. of artificial antibodies {\bf r}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Atsushi O,
                                                                                                                                                                                                             W09852415-A1
                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                Zonulin; mammalian tight junction; zonula occludens toxin; ZOT vibrio cholerae; vaccine; cholera toxin; polyclonal antibody;
                                                                                                                                                                                                                                                                                                                             Human adult heart zonulin N-terminal peptide
                                                                                                                                                                                                                                                                                                                                                         21-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                     W94487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 2; Page 24; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAR-1994;
                                         WPI; 1999-070123/06
                                                                                                                                                       28-APR-1998;
                                                                                                                                                                                   26-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                              (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                          21-MAY-1997;
                                                                                                                                                                                                                                                                      intestinal mucosa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TAKI ) TAKARA SHUZO CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GGGLVQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ggglvqpg 15
                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hirofumi Y,
                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                          97US-0859931
                                                                                                                                                       98WO-US07636.
                                                                                                                                                                                                                                                                                                                                                                                                              peptide;
                                                                                                                                                                                                                                                                      nasal mucosa; blood brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ikunoshin K,
                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 36; DB
Pred. No. 2.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Takashi T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yoshinobu
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New purified zonulin - which is mammalian tight junctions, used

capable of reversibly opening for enhancing the delivery of agents

across intestinal and nasal mucosa and blood brain barrier

Page 45; 64pp; English

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                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                        Matches
New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                           WPI; 2000-205565/18
                                                   (UYMA-) UNIV MARYLAND BALTIMORE
                                                                03-AUG-1998;
                                                                                      17-FEB-2000.
                                                                                                  WO200007609-A1
                                                                                                                            Zonulin; antagonist; zonula occludens toxin receptor; human; blood-brain barrier; antiinflammatory;
                                                                                                                                              Human adult heart zonulin N-terminal sequence.
                                                                          28-JUL-1999;
                                                                                                                        gastrointestinal inflammation; therapy.
                                                                                                                                                            05-JUN-2000
                                                                                                              Homo sapiens.
                                                                                                                                                                                 Y79130 standard; Peptide; 20 AA
                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                      . 1 GGGLVQDG 8
                                                                                                                                                                                                              8 ggglvqpg 15
                                                                                                                                                                                                                                                                     20 AA;
                                                                                                                                                                                                                                        Conservative
                                                                                                                                                           (first entry)
                                                              98US-0127815
                                                                          99WO-US16683
                                                                                                                                                                                                                                            83.7%;
                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                          Score 36; DB 20; Length 20; Pred. No. 3.2;
                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                     Indels
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0;

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В
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                                                                                                                                        SX SS SS SS SS SS X & S
                                                           Matches
                                                                      Query Match
Best Local Similarity
                                                                                                                                                                 The present sequence is that of the N-terminal region of adult human heart zonulin. The N-terminal sequences of human adult and foetal zonulins (see Y79130-36) were compared with Vibrio cholerae zonula occludens toxin (20T) to identify a common motif thought to be involved in receptor binding. Peptide antagonists (see Y79105-29) based on this motif are useful as antiinflammatory agents for treatment of gastrointestinal inflammation, and for treatment of conditions associated with breakdown of the blood-brain
                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                            Example 3; Fig 6; 69pp; English.
                1 GGGLVQDG 8
8 ggglvqpg 15
                                                         7;
                                                                                                                                    20
                                                         Conservative
                                                                                                                                    Æ
                                                                        83.7%;
                                                         0,:
                                                                      Pred. No. 3
                                                        Mismatches
                                                                   DB 21;
3.2;
                                                                                 Length 20;
                                                    Indels
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                                                   Gaps
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Search completed: June 13, 2001, 14:25:45 Job time: 664 sec

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Title:
Perfect score:
Sequence:
                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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                                                                   Database
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Maximum DB seq length: 2000000000
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                                                                   PIR_67:*
                                                                                                                                                                                                                                                     198801 seqs, 68722935 residues
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Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                          1 GGGLVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
p1r1:*
p1r2:*
p1r3:*
p1r4:*
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Pred. No. 1s the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	<sub>C</sub>	4	ω	2	_	Result
36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	37	37	37	37	38	Score
83.7	83.7	83.7	w	Ü	Ü	83.7	83.7	ω.	ω.	w	ω.	ω.	ω.	83.7	Ψ	Ψ	Ψ	83.7	Ψ.	<b>س</b>	۳	ω.	u.	6	5	5	σ.	8	Query Match
86	98	98	98	98	98	98	98	97	97	. 97	97	97	97	97	95	94	94	82	60	59	59	38	36	146	123	123	101	100	Length
Ν	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Ŋ	N	N	N	N	N	N	N	N	N	N	BB
2689	S26932	2692	2954	2689	L012	H087	L012	5485	89	4646	2689	2688	2688	H087	6752	6752	2591	96	3638	3638	2760	3340	3148	4718	D30539	3055	0000		ID
Ig heavy chain V r	in V	heavy chain V	heavy chain V	heavy chain V	heavy c	heavy chain V	Ig heavy chain V-I	heavy chain V	Ig heavy chain V r	heavy chain V		heavy chain V		heavy	CD33 antigen homol	3 antigen homo	heavy chain V	Ig heavy chain pre	Ig heavy chain V r	heavy c	heavy chain V-	Ig heavy chain V r	heavy chain V		chain V	heavy chain V	heav	ine proteinase	Description

45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30
36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
111	111	111	106	105	105	101	101	100	100	100	100	86	86	98	98
ນ	N	۲	N	N	N	2	N	N	N	N	N	N	N	N	N
S69911	PH1028	MHMS76	S24521	PL0255	S38488	PU0002	PU0003	S26926	S26925	S69896	PL0122	S26934	S26933	S26889	S26894
_	Ig heavy chain V r	Ig heavy chain V-I	Ig heavy chain V $r$	_	Ig heavy chain - h	heavy	heavy		heavy	heavy	heavy	Ig heavy chain V r			

# ALIGNMENTS

RESULT C82630

			·	
Oy 1 GGGLVQDG 8      :   Db 464 GGGLIKDG 471  RESULT 2 PU0001  Ig heavy chain V region (V1) - mouse C;Species: Mus musculus (house mouse) C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 06-Jun-1997 C;Accession: PU0001 R;Ferguson, S.E.; Rudikoff, S.; Osborne, B.A. J. Exp. Med. 168, 1339-1349, 1988	Query Match 88.4%; Score 38; DB 2; Length 1000; Best Local Similarity 75.0%; Pred. No. 21; Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;	A; Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Fr J.D.; Junquelara, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; La chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins A; Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C., F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawa A; Authors: da Silva, A.C.R.; da Silva, A.M.; Silva, A.M., Silva, A.M.; S	serine proteinase XF1851 [imported] - Xylella fastidiosa (strain 9a5c) C;Species: Xylella fastidiosa C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 02-Sep-2000 C;Accession: C82630 R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Seq Nature 406, 151-157, 2000 A;Title: The genome sequence of the plant pathogen Xylella fastidiosa. A;Reference number: A82515; MUID:20365717 A;Note: for a complete list of authors see reference number A59328 below A;Accession: C82630 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-1000 <sim> A;Cross·references: GB:AE004006; GB:AE003849; NID:g9106932; PIDN:AAF84657.1; GSPDB:GN A;Stapperimental source: strain 9a5c R;Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R. Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer as-Neto. E: Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S.</sim>	C82630

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Ig heavy chain V region (224.2B11) - mouse (fragment)
C.Species: Mus musculus (house mouse)
C.Date: 10-Feb-1989 #sequence_revision 10-Feb-1989 #text_change 16-Aug-1996
C.Accession: D30539
R.Clafiln, J.L.; Berry, J.
J.Immunol. 141, 4012-4019, 1988
A:Title: Genetics of the phosphocholine-specific antibody response to Streptococcus A:Accession: D30539
                                         Ş
                                                                                                                                            C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;15-100/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                              A;Status: preliminary; nucleic acid sequence not shown; not compared with conceptual transposed type: mRNA
A;Molecule type: mRNA
A;Residues: 1-123 <CLA>
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J. Immunol. 138, 3060-3068, 1987
A;Tille: Somatic evolution of diversity among anti-phosphocholine antibodies induced A;Reference number: A30556; MUID:87196439
A;Accession: C30556
A;Status: preliminary
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A; Residues: 1-123 <CLA>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Title: Interaction and sequence diversity among T15 VH genes in CBA/J mice. A;Reference number: PU0001; MUID:89010532
A;Accession: PU0001
A;Status: translation not shown
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-101 <FER>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
C;Keywords: immunoglobulin homology <IMM>
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Matches
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Best Local Similarity 87.5
Matches 7; Conservative
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A;Cross-references: EMBL:X73019
A;Experimental source: strain B;
                                 A; Molecule type: mRNA
A; Residues: 1-38 <KET>
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A; Residues: 1-146 <SUN>
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Best Local S
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RESULT 6
D31485
Ig heavy chain V regions (3-24 and 5-14) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Apecies: Mus musculus (house mouse)
C;Accession: D31485
R;Bedzyk, W.D.; Johnson, L.S.; Riordan, G.S.; Voss Jr., E.W.
J. Biol. Chem. 264, 1565-1569, 1989
A;Title: Comparison of variable region primary structures within an anti-fluore A;Reference number: A31485; MUID:89109167
A;Retous: preliminary
A;Molecule type: protein
A;Residues: 1-36 <BED>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                       Ig heavy chain V region - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 19-Mar-1997 #sequence_revision 24-Jul-1997
C:Accession: $33402; $356385
R:Kettleborough, C.A.; Saldanha, J.; Ansell, K.H.;
Eur. J. Immunol. 23, 206-211, 1993
                                                                                                                                                       A;Reference number: $33391; MUID:93122092

A;Molecule to the first term of the first
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
F;34-116/Domain: immunoglobulin homology <IMM>
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A;Accession: I47184
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C:Species: Sus scrofa domestica (domestic pig)
C:Date: 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 21-Jan-2000
C:Accession: I47184
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87.5%;
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1.3;
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C;Genetics:
A;Introns: 30/3
A;Introns: 30/3
C;Superfamily: immunoglobulin V region; imm
C;Superfamily: immunoglobulin V region; immunoglobulin
                            A;Cross-references: EMBL:X73012; NID:g295879; PIDN:CAA51498.1; PID:g939941 R;Kettleborough, C.A.; Saldanha, J.; Ansell, K.H.; Bendig, M.M. Eur. J. Immunol. 23, 206-211, 1993 A;Title:,Optimization of primers for cloning libraries of mouse immunoglob A;Reference number: S33391; MUID:93122092 A;Accession: S33391 MUID:93122092 A;Accession: S33394 KET>
                                                                                                                                                                                                                                                    Ig heavy chain V region - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1997 #sequence_revision 29-Aug-1997
C;Accession: S36381; S33396
R;Ansell, K.H.
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A; Residues: 1-59 < ANS>
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A; Note: the authors translated
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A; Residues: 1-59 <CUR>
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C;Superfamily: immunoglobulin V region;
C;Keywords: heterotetramer; immunoglobul
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A; Residues: 1-30 < ANS>
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                                                                                                                                                                                                                                                                                        #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1;
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                                                                                                   1mmunoglobulin
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A; Molecule type: mRNA
A; Residues: 1-82 <SAN>
A; Cross-references: GB:M26996
A; Cross-reference shown differs from the authors' ta
A; Note: the sequence shown differs from the authors' ta
C; Superfamily: immunoglobulin V region; immunoglobulin
C; Keywords: heterotetramer; immunoglobulin
                                                                                                                        Ig heavy chain precursor V-III region (Ab21) - human C;Species: Homo sapiens (man) C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change C;Accession: C34964 R;Sanz, I.; Casali, P.; Thomas, J.W.; Notkins, A.L.; Capra, J.D. J. Immunol. 142, 4054-4061, 1989 A;Title: Nucleotide sequences of eight human natural autoantibod A;Reference number: A92830; MUID:89235232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:X73011
A;Experimental source: strain BALB/c
A;Experimental source: strain BALB/c
C;Superfamily: immunoglobulin region; immunoglobulin c;Keywords: heterotetramer; immunoglobulin
C;Keywords: heterotetramer; immunoglobulin homology (fragment) <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: EMBL:X73011; NID:g295878; PIDN:CAA51497.1; PID:g939940 R;Kettleborough, C.A.; Saldanha, J.; Ansell, K.H.; Bendig, M.M. Eur. J. Immunol. 23, 206-211, 193 A;Title: Optimization of primers for cloning libraries of mouse immunoglobulin A;Reference number: S33391; MUID:93122092 A;Accession: S33397
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S36382
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R; Ansell, K.F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1997 #sequence_revision 29-Aug-1997 #text_change 23-Jul-1999
C;Accession: S36382; S33397
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A; Residues: 1-33 <KET>
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A; Residues: 1-60 < ANS>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       submitted to the EMBL Data Library, April 1993 A; Reference number: S36376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Accession: S36382
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2.3;
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Conservative

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Score 36; Pred. No.

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Length 82

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C:Species: Mus sp. (mouse)
C:Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jan-2000 C:Accession: 167527
R:Cchies, J.A.; Lembezat, M.P.; Freitas, A.A.
Eur. J. Immunol. 24, 1657-1664, 1994
A:Title: Entry of B lymphocytes into the persistent cell pool in non-immuni A:Reference number: 153392; MOID:94298870
                                                                                                                          RESULT 14
167527
CD33 antigen homolog - mouse (fragment)
C:Species: Mus sp. (mouse)
C:Date: 29-May-1998 #sequence revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Mus sp. (mouse)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jan-2000
C;Datcession: 167528
R;Chies, J.A.; Lembezat, M.P.; Freitas, A.A.
Eur. J. Immunol. 24, 1657-1664, 1994
A;Title: Entry of B lymphocytes into the persistent cell pool in non-immuni A;Reference number: I53392; MUID:94298870
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C:Superfamily: imn
F:11-94/Domain: in
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A:Molecule type: mRNA
A:Residues: 1-94 CRES>
A:Cross-references: GB:S71357; NID:g550040
C:Genetics:
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I67528
CD33 antigen homolog -
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Proc. Natl. Acad. Sci. U.S.A. 84, 2454-2458, 1987
A;Title: Adult B-cell repertoire is biased toward
A;Reference number: A94148; MUID:87175692
A;Accession: D25913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
D25913
Ig heavy chain V region (BFL1) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change 16-Aug-1996
C;Accession: D25913
R;Lawler, A.M.; Lin, P.S.; Gearhart, P.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-94 <LAW>
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A;Residues: 1-97 <MAN>
A;Residues: 1-97 <MAN>
A;Rote: a "g" was inserted at the position of between 72nd and 73rd of C;Comment: This antibody is produced by Epstein-Barr virus-transformed C;Superfanily: immunoglobulin v region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
F;14-97/Domain: immunoglobulin homology <IMM>
F;14-97/Domain: immunoglobulin homology <IMM>
F;14-97/Domain: complementarity-determining 1
F;49-66/Region: complementarity-determining 2
                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-97 < MAN>
                                                                                                                                                                                                                                                                                                                                                             A; Accession: PH0872
                                                                                                                                                                                                                                                                                                                                                                   R;Manheimer-Lory, A.; Katz, J.B.; Pillinger, M.; Ghossein, C.; Smith, A.; Diamond, B. J. Exp. Med. 174, 1639-1652, 1991
A;Title: Molecular characteristics of antibodies bearing an anti-DNA-associated idiot
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ig heavy chain V region (anti-DNA, III-3R) - human (fragment)
C:Species: Homo sapiens (man)
C:Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 16-Aug-1996
C:Accession: pH0872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Mesidues: 1-95 <RES>
A;Cross-references: GB:S71351; NID:g550039
C;Genetics:
A;Genetics: Ig VHX24a
C;Superfamily: immunoglobulin V region; immunoglobulin homology
F;12-95/Domain: immunoglobulin homology <IMM>
                                                                          Query Match
Best Local Similarity
Matches 7; Conserv
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Best Local Similarity 87.
Matches 7; Conservative
                                  1 GGGLYQDG 8
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GGGLVQPG 14
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                                                                                                                                                                                                                                                                                                                                                                      Immunoglobulin
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P01771 homo sapien	HV3J_HUMAN	بر	121	76.7	33	ŭ
homo	HV3I_HUMAN	_	119	76.7	33	4
P01763 homo sapien	HV3B_HUMAN	-ب	114	76.7	ω ω	ü
P33485 pseudorabie	VNUA_PRVKA	ب	1733	79.1	34	ັນ
076971 paracentrot	OTP_PARLI	ب	364	79.1	34	ï
P19181 carassius a	HV05_CARAU	_	116	81.4	35	Ö
P01767 homo sapien	HV3F_HUMAN	ب	115	81.4	35	9
P25203 giardia lam	YRP3_GIALA	_	528	83.7	36	ã
P01795 mus musculu	HV26_MOUSE	ب	144	83.7	36	7
P01805 rattus norv	HV01_RAT	_	142	83.7	36	6
mus	HV16_MOUSE	_	136	83.7	36	5
P01794 mus musculu	HV25_MOUSE	_	123	83.7	36	4

## ALIGNMENTS

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SEQUENCE.
MEDLINE-78158406; PubMed-417344;
Vrana M., Rudikoff S., Potter M.;
                                                            Mus musculus (Mouse).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus NCBI_TaxID-10090;

[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HV27_MOUSE STANDARD: PRT; 113 AA. P01796; 21-JUL-1986 (Rel. 01, Created) 21-JUL-1986 (Rel. 01, Last sequence update) 15-JUL-1999 (Rel. 38, Last annotation update) 15 G HEAVY CHAIN V-III REGION A4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
1G HEAVY CHAIN V-III REGION HPC76 (FRAGMENT).
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12304 MW;
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                                                                                                                                                                                                                                                                                                                                                                                  Score 36; DB 1; Length 111; Pred. No. 3.2; 0; Mismatches 1; Indels
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SQ PT

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PIR; Byselo; PIR()3006; -
Interpro; IPR()3006; -
Pfam; PF()0047; 1g; 1
Immunoglobulin V region.
22 98
                                                                      HV29_MOUSE STANDARD; PRT; 113 AA. P01798; PRT; 113 AA. 21-JUL-1986 (Rel. 01, Created) 21-JUL-1986 (Rel. 01, Last sequence update) 15-JUL-1999 (Rel. 38, Last annotation update) IG HEAVY CHAIN V-III REGION E109. Mus musculus (Mouse).
                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
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InterPro: IPRO03006; -
Pfam: PF00047; 19; 1
Immunoglobulin v region.
22 98
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-i- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-78158406; PubMed=417344;
Vrana M., Rudikoff S., Potter M.;
"Sequence variation among heavy chains from inulin-binding myeloma
proteins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus musculus (Mouse).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

NCBI_TaxID=10090;
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21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION U61.
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nes 7; Conserv
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; B93818; AVMS61.
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8 GGGLVQPG 15
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113 AA;
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Rodentia;
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12675 MW;
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: THIS CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN THAT
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87.58;
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                                                                                                                                                                                                                                                                                                                                                                  Score 36; DB Pred. No. 3.3; 0; Mismatches
                      Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
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  HV31_MOUSE STANDARD
ID HV31_MOUSE STANDARD
AC PO1880;
DT 21-JUL-1986 (Rel. 01, C
DT 01-OCT-1993 (Rel. 27, L
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SEQUENCE
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Pfam; PF00047; ig; 1.
Immunoglobulin V region.
DISULFID 22 98
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biochemistry 16:1170-1175(1977).
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"Heavy-chain variable-region sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIINE=77134726; PubMed=402936; Vrana M., Rudikoff S., Potter M.;
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SEQUENCE
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Immunoglobulin V region.
DISULFID 22 98
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Proc. Natl. Acad. Sci. U.S.A. 75:1957-1961(1978).
-!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDITINE-78158406; PubMed-417344;
Vrana M., Rudikoff S., Potter M.;
"Sequence variation among heavy chains from
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[1]
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sequence update)
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0; Mismatches
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3.3;
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                                                                                                                                                                                                                                                                     Length 113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  inulin-binding myeloma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A MYELOMA PROTEIN THAT
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; Murinae; Mus
                                                                                                                                                                                                                              0;
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RESULT 3
HV28\_MOUSE
ID HV28\_MOU
AC P01797;
DT 21-7UL-1
DT 15-7UL-1
DT 15-7UL-1
DE IG HEAVY
OS MUS MUSC
OC EUKARYOT
OC MAMMALIA
OX NCBI\_TAX
RN [1]
RP SEQUENCE
RX MEDLINERA Vrana M.
RT "Sequen
RY Proc. Na
CC 1- MISC
CC 1- MISC
CC 5INI
CC BINI
CR PIR; B9;
DR Interpro
DR Pfam; PF
RKW Immunog]
FT NON TER
SQUENCE

SEQUENCE.

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Query Match Best Local S Matches 7

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RESULT HV29\_M

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Local

DISULFID NON\_TER SEQUENCE

15-JUL-1999 (Rel. 38, Last annotation update) IG HEAVY CHAIN V-III REGION T957.

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RESULTI HV34_LH V34_LH 
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Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                   PIR; A02073; HVMSAM.
InterPro; IPR003006;
Pfam; PF00047; 19; 1.
Immunoglobulin V region.
DISULFID 22 9B BY
NON_TER 113 113
SEQUENCE 113 AA; 12691 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR; BINDS INVIL....
PIR; A92810; AVMS57.
Interpro; IPR003006; -.
Pfam; PF00047; 19; 1.
Immunoglobulin V region.
22 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-81216632; PubMed-6787122;
Rudikoff S., Potter M.;
"Immunoglobulin heavy chains from anti-inulin evidence for a new heavy chain joining segment J. Immunol. 127:191-194(1981).
-!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOUSE
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Rudikoff S., Potter M.;
"Immunoglobulin heavy chains from anti-inulin myeloma evidence for a new heavy chain joining segment.";
J. Immunol. 127:191-194(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; MCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-1803;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V REGION AMPC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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GGGLVQPG
GGGLVQPG
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                                                                                                                               Similarity
7; Conserv
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12732 MW;
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87.5%;
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Pred.
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                                                                                                                                                                                                                                                                                          7A6D906AAA966E9E CRC64;
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3.3;
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3;
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RESULT

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HV32_MOUSE
ID HV32_M
AC PO1801
DT 21-JUL
DT 21-JUL
DT 15-JUL
DT 15-JUL
DE IG HEA
OS MUS MU
OC EUARRY
OC MAMMMAI
DE SEQUEN
RP SEQUEN
RP SEQUEN
RX MEDLIN
RX MEDLIN
RX Johnso
RT The C
RT bindin
CC -1- mi
CC RT bindin
CC -1- mi
CC RT bindin
CC -1- mi
CC RT bindin
CC Interp
DR Pfam;
CC Interp
DR Pfam;
CG Interp
DR Pfam;
TMN JONN JES
SQ SEQUEN
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HV33_M
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                     Query Match
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Best Local (
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                                                                         PIR; D92811; AVMS82.
InterPro; IPRO03006; -.
Pfam; PF00047; 1g; 1.
Immunoglobulin v region.
DISULFID 22 98
NON_TER 115 115
SEQUENCE 115 AA; 12887 M
                                                                                                                                                                                                                                                    Mus musculus (Mouse).
Eukaryota; Metazoa; Chu
Mammalia; Eutheria; Ro
                                                                                                                                                              J. Immunol. 128:302-307(1982).
J. Immunol. 128:302-307(1982).
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NON_TER
SEQUENCE
                                                                                                                                                                                               MEDLINE-82099361; PubMed-6798111;
Johnson N., Slankard J., Paul L.,
"The complete V domain amino acid
                                                                                                                                                                                                                                                                                              21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation IG HEAVY CHAIN V-III REGION W3082.
                                                                                                                                                                                                                                                                                                                                                                   SEDOM
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Johnson N., Slankard J., Paul L.,
"The complete V domain amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Mammalia; Eutheria; NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               binding proteins.";
J. Immunol. 128:302-307(1982).
                                                                                                                                                                                                                                 SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR003006; ... Pfam; PF00047; ig; 1. Immunoglobulin V region. DISULFID 22 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- MISCELLANEOUS: THIS
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                     Similarity 87.17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             115 AA;
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                                                                                                                                                                                                                                                               Chordata;
Rodentia;
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12810
                                83.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83.7%;
87.5%;
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                                                                           W.
                     0;
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                                Score
Pred.
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Sciurognathi; Muridae.
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Sciurognathi; Muridae;
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                     core 36; DB red. No. 3.4; Mismatches
                                                                           9B4517648C121C5A CRC64;
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                                                                                                                                                                                                of.
                                                                                                                                                                                                                                                                 Muridae;
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                     1;
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                                          Length 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     two
                                                                                                                                                                                                two myeloma
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                                                                                                                                                                 MYELOMA PROTEIN
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                      Indels
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                                                                                                                                                                                                                                                               Euteleostomi;
; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi;
; Murinae; Mus
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                     0
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                     Gaps
                     0;
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GGGLVQPG 15

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RESULT 10
HV3D_HUMAN
ID HV3D_H
AC P01765
DT 21-JUL
DT 21-JUL
DT 15-JUL
DE IG HEA
OS HOMOO S
OC Mammal
OX MCBI_T
RN [1]
RP SEQUEN
RX MEDLIN
RX MEDLIN
RX Wang A
RT "Immun
RT region
RI J Bio
CC -1- MI
CC G G
CC -1- MI
CC G G
CC G ID
DR PIR; A
DR InterP
DR Ffam;
KW IMMUNC
SEQUEN
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Best Local S
Matches 7
                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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MEDILINE-82059449; PubMed=6795591;
Ollo R., Auffray C., Sikorav J.-L., Rollo R., Auffray C., Sikorav J.-L., Rollo R., Sikorav J.-L., Rollo R., Sikorav J.-L., Rollo Reavy chain variable regions: regern-line VH gene segment.";
Nucleic Acids Res. 9:4099-4109(1981).
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InterPro; IPR003006; -
Pfam; PF00047; 1g; 1
Immunoglobulin V region.
NON TER
115
115
  EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HV36_MOUSE STANDARD; PRT; 116 AA

PO1806;

21-JUL-1986 (Rel. 01, Created)

21-JUL-1986 (Rel. 01, Last sequence update)

15-JUL-1999 (Rel. 38, Last annotation update)

16 HEAVY CHAIN REGION 441 PRECURSOR.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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P01765;
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation updat
IG HEAVY CHAIN V-III REGION TIL.
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V00774; CAA24152.1;
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7; Conservative
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115 AA;
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87.5%;
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Pred. No. 3
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HV17_MOUSE
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Best Local S
Matches 7
                Mus musculus (Mouse).
Eukaryota; Metazoa; C!
Mammalia; Eutheria; Rc
NCBI_TaxID=10090;
                                                 HVIT_MOUSE STANDARD; PRT; 1
P01786;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN v REGION MOPC 47A.
                                                                                                                                                                                                                                                             PIR; A02062; AlHUTU.
InterPro; IPR003006; -.
Pfam; PF00047; ig; 1.
Immunoglobulin V region.
NON_TER 116 116
SEQUENCE 116 AA; 12431
                                                                                                                                                                                                                                                                                                                                                        "Variable region sequences of five human immunoglobulin of the VH3 subgroup: definitive identification of four h
                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=74142702; PubMed=4522793; Capra J.D., Kehoe J.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HV3R_HUMAN STANDARD; PRT; 1
P01779;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
IG HEAVY CHAIN V-III REGION TUR.
                                                                                                                                                                                                                                                                                                                                               hypervariable regions.";
Proc. Natl. Acad. Sci. U
                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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NON_TER
SEQUENCE
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Pfam; PF00047; 1g; 1.
Immunoglobulin V region; Signal.
SIGNAL 1 18
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8 GGGLVQPG 15
                                                                                                                                                                                                       Local Similarity
les 7; Conserv
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HSSP; P01810; 2FBJ.
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19
116
116 AA;
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THIS CHAIN WAS ISOLATED FROM
                         Chordata;
Rodentia;
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116
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12911 MW;
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87.5%;
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Pred. No.
                     Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
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Pred. No. 3:4;
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MEDLINE=80049769; PubMed=115869; Robinson E.A., Appella E.;

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                                       Query Match
Best Local Similarity
""" hes 7; Conserv
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Best Local Similarity
Matches 7; Conser
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Pfam; PF00047; 19; 1.
Immunoglobulin V region.
NON_TER 117 117
SEQUENCE 117 AA; 12975
                                                                                                                                                                               IR; M32047; N2047; N204
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RABbitts T.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; J00236; AAA53516.1; EMBL; M35415; AAA58735.1; PIR; A02047; H3HU26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Amino acid sequence of a mouse myeloma immunoglobin heavy chain (MOPC 47 A) with a 100-residue deletton.";
J. Biol. Chem. 254:11418-11430(1979),
-I- MISCELLANEOUS: THIS ALPHA CHAIN WAS ISOLATED FROM A MYELOMA PROTEIN THAT CONTAINS ONE LIGHT AND ONE HEAVY CHAIN PER MOLECULE, LINKED BY A DISULFIDE BOND. IN CONTRAST, NORMAL MOUSE IGA MOLECULES CONTAIN TWO LIGHT AND TWO HEAVY CHAINS AND LACK A LIGHT-HEAVY CHAIN DISULFIDE BOND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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"Structure and multiplicity of genes for the human heavy chain variable region.";
Proc. Natl. Acad. Sci. U.S.A. 77:6561-6565(1980).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HUMAN
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       GGGLVQDG 8
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                                                                       Conservative
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87.5%;
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                                                                                                       Score 36; DB Pred. No. 3.4;
                                                                                                                                                                                                                                                                                                                IG HEAVY CHAIN V-III REGION VH26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                            E826733F1A3CB0F1 CRC64;
                                                                       Mismatches
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3.4;
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                                                                       Indels
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Pfam; PF00047; 1g; 1
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P01776;
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"Variable region sequences of five human immunoglobulin heavy chains of the VH3 subgroup: definitive identification of four heavy chain
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PIR; A02059; G1HUWS.
HSSP; P01772; 2IG2.
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Proc. Natl. Acad. Sci. U.S.A. 71:845-848(1974).
-!- MISCELLANEOUS: THIS CHAIN WAS ISOLATED FROM AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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21-JUL-1986 (Rel. 01, Last seque
15-JUL-1996 (Rel. 38, Last annot IG HEAVY.CHAIN V-III REGION WAS.
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OppcdO xylella fas
Opqv16 rattus sp.
Opqu16 rattus sp.
Opqu16 homo sapien
Opu191 homo sapien
Opu192 homo sapien
Opu193 homo sapien
Opu655 streptomyce
O84994 burkholderi
O95848 homo sapien
P9693 mycobacteri
Ops640 burkholderi
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Ops3a8 burkholderi
O923a8 burkholderi
O68143 burkholderi
O58137 rhodococcus
O28311 archaeoglob
O91004 streptomyce
O55136 mus musculu
O43129 aspergillus
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Q9khw1 rhizobium m	074052 cenarchaeum	Q9ve25 drosophila	Q43986 acinetobact	Q9krv2 vibrio chol	Q9xc10 mycobacteri	strep	Q9y509 homo sapien	homo	homo	homo	_	Q69340 pseudorabie	Q91hd1 arabidopsis	Q9zle8 helicobacte		Q55856 synechocyst	P70944 burkholderi	Q9zfk3 burkholderi .	Q9rqe9 burkholderi	Q9s638 burkholderi	Q9s639 burkholderi		Q9rxz3 deinococcus	7	080841 arabidopsis

## ALIGNMENTS

RA	RA	RA	RA	RA								RA														•									ij,	RESULT
S., V	de Souza A.P., Terenzi M.F., Truffi D., Tsai S.M., Tsuhako M.H.,	da Silveira J.F., Silvestri M.L.Z., Siqueira W.J., de Souza A.A.,	da Silva A.C.R., da Silva A.M., da Silva F.R., Silva W.A. Jr.,	de Rosa V.E. Jr., de Sa R.G., Santelli R.V., Sawasaki H.E.,	R.B., Roberto	de Oliveira M.C., de Oliveira R.C., Palmieri D.A., Paris A.,	Nhani A. Jr., Nobrega F.G., Nunes L.R., Oliveira M.A.,	, Nascimento A.L.T.O., Netto L.E.S.,	.F.M., Miracca	Martins E.A.L., Martins E.	Madeira A.M.B.N., Madeira	Lemos M.V.F., Lopes S.A., Lopes C.R., Machado	Krieger J.E., Kuramae E.E., Laigret F., Lambais M.R., Leite L.C.C.,	_	Goldman G.H., Goldman M.H.S., Gomes	Fraga J.S., Franca S.C., Franco M.C., Frohme M., Furlan L.R.,	A.J.S., Ferreira V	Coutinho L.L., Cristofani M., Dias-Neto E., Docena C., El-Dorry H.,	Colauto N.B., Colombo C., Costa F.F., Costa M.C.R., Costa-Neto C.M.,	Bueno M.R.P., Camargo A.A., Camargo L.E.A., Carraro D.M., Carrer H.,	Barros M.H., Bonaccorsi E.D., Bordin S., Bove J.M., Briones M.R.S.,	Simpson A.J.G., Reinach F.C., Arruda P., Abreu F.A., Acencio M.,	MEDLINE~20365717; PubMed~10910347;	STRAIN-9A5C;	SEQUENCE FROM N.A.	[1]	NCBI_TaxID=2371;	Ø	Xylella fastidiosa.		(TrEMBLrel. 15, Last	(TrEMBLrel. 15,	2000 (TrEMBLrel.	•	Q9PCDO PRELIMINARY; PRT; 1000 AA.	ULT 1

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INTERPRO; IPR000209;
INTERPRO; IPR000209;
INTERPRO; IPR0002055;

R PFAM; PF00082; Peptidase_S8; 2.
R PFINTS; PR00723; SUBTILISIN.
R PRINTS; PR01217; PRICHETERSN.
R PROSITE; PS00136; SUBTILASE_ASP; UNKNOWN_1.
R PROSITE; PS00138; SUBTILASE_SER; UNKNOWN_1.
R PROSITE; PS00138; SUBTILASE_SER; UNKNOWN_1.
R PROSITE; PS00138; SUBTILASE_SER; UNKNOWN_1.
SEQUENCE 1000 AA; 105429 MW; 113491226F8DE26C CRC64;
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Q9ULB6;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
Q1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
Q1-OCT-2000 (TrEMBLrel. 15, Last annotation update)
IMUNOGLOBULIN HEAVY CHAIN (FRAGMENT).
SEQUENCE FROM N.A. Tange Y., Kayano H.;
                                                                                                                 Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammaila; Eutheria; Primates;
NCBI_TaxID-9606;
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Cohen H., Cohen O., Gagnon J.;
"Serum prolactin binding protein (PRL-BP) of human identified as IgG.",
C. R. Acad. Sci., III, Sci. Vie 317:293-298(1994).
HSSP; P01789; 1MCP.
SEQUENCE 15 AA; 1469 MW; 35ED2512FF3FA369 CRC64
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Q9QV16;
Q1-WAY-2000 (TrEMBLrel. 13, Created)
Q1-WAY-2000 (TrEMBLrel. 13, Last sequence update)
Q1-OCT-2000 (TrEMBLrel. 15, Last annotation update)
PROLACTIN-BINDING PROTEIN (FRACHENT).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
(CB_TaxID=10118;
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"The genome sequence of the pla
Nature 406:151-157(2000),
EMBL; AE004006; AAF84657.1; -.
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s sequence of the plant pathogen Xylella fastidiosa.";
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75.0%;
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Pred. No. 1.5;
0; Mismatches
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                                                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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Pred. No. 75;
2; Mismatches
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SEQUENCE FROM N.A.
MEDLINE-98277139; PubMed-9614934;
Tiu B., Van der Merwe P.L.,
                                                                                                                                                                                 Q9UL72
Q9UL72;
PRELIMINARY;
PRT;
118 AA.
Q9UL72;
Q1-MAY-2000 (TremBLrel. 13, Created)
Q1-MAY-2000 (TremBLrel. 13, Last sequence update)
Q1-CCT-2000 (TremBLrel. 15, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
                                                                                                                              Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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Best Local (
                                                                                                           NCBI_TaxID=9606;
[1]
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SEQUENCE
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MEDLINE-98277139; PubMed-9614934;
MEDLINE-98277139; PubMed P.L., Kalis N.N.,
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Mammalia; Eutheria;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
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|||||| |
8 GGGLVQPG 15
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Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AB035268; BAA87067.1; ...
HSSP; P01772; 2FB4.
INTERPRO; IPR003006; -.
PPAM: DECOMORY. 12. 1
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118 AA;
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10527 MW;
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87.5%;
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                                                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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Pred. No.
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01-NOV-1999
01-MAY-2000
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"Myosin-reactive autoantibodies fetus.";
fetus. "munnol. Immunopathol. 87:
                                            01-NOV-1998 (TrEMBLrel. 08, 01-NOV-1998 (TrEMBLrel. 08, 01-OCT-2000 (TrEMBLrel. 15, FLAGELLIN (FRAGMENT).
                                                                                                   084994
                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN=TU 1892;
MEDLINE=99203506; PubMed=10103039;
MEDLINE=99203506; PubMed=10103039;
Chen S., von Bamberg D., Hale V., Breuer M., Ha Floss H.G., Reynolds K.A., Leistner E.;
Floss H.G., Reynolds K.A., Leistner E.;
Flosynthesis of ansatrienin (mycotrienin) and Talogynthesis of ansatrienin (mycotrienin) and
                                                                                                                                                                                                                                                                                                                                                                                                                      Streptomyces collinus.

Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Streptomycineae; Streptomycetaceae; St
NCBI_TaxID-42684;
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HSSP; P01772; 2FB4
                       Bacteria; Proteobacteria;
                                  Burkholderia pseudomallei
                                                                                         084994;
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  NCBI_TaxID=28450;
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                                                                                                                                                                                                                                                                                                 Identification and analysis of two separate biosynthetic in Streptomyces collinus Tu 1892."; Eur. J. Biochlem. 261:98-107(1999). EMBL; AF131877; AAD31831.1; .
                                                                                                                                                                                                                                                                                         INTERPRO;
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nes 7; Conserv
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                       (Pseudomonas pseudomallei)
beta subdivision; Burkhold
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                                                       sequence up
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SEQUENCE
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01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last seq
01-MAY-1999 (TrEMBLrel. 10, Last ann
HYPOTHETICAL 31.5 KDA PROTEIN.
HOmo sapiens (Human).
                                                                                 01-MAY-1997 (TrEMBLrel. 03, Created)
01-MAY-1997 (TrEMBLrel. 03, Last sequence up
01-JUN-2000 (TrEMBLrel. 14, Last annotation
HYPOTHETICAL 29.3 KDA PROTEIN.
                                                                                                                                                                                                                                                                   SEQUENCE 290 AA; 31520 MW;
                                                                                                                                                                                                                                                                                                    "Cloning, chromosomal localization and Jagged2 gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clinical isolates.";
J. Med. Microbiol. 47:689-694(1998).
EMBL; AF030241; AAC27443.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Winstanley C., Hales B.A., Corkill J.E., Gallagh
"Flagellin gene variation between clinical and of
of Burkholderia pseudomallei contrasts with the
MEDLINE=98295987; PubMed=9634230;
        SEQUENCE FROM N.A. STRAIN=H37RV;
                            Actinomycetales;
NCBI_TaxID=1773;
[1]
                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                       Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                 Mycobacterium tuberculosis.
                                                                           RV0650 OR MTCY20H10.31
                                                                                                                          P96939;
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                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                               Corynebacterineae;
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Primates;
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Pred.
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Catarrhini;
                                                                                                                                   PRT;
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                                               Mycobacterium.
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"Variation of flagellin genes between virulent and non-virulent strains of Burkholderia pseudomailei.";

L Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.

R EMBL; AF678155; AAD24680.1;

R INTERPRO; IPR001492;

R INTERPRO; IPR001492;

R PFAM; PF00669; Flagellin_N; 1.

R PFAM; PF007700; Flagellin_C; 1.

R PFAM; PF007707; FLAGELLIN.

I NON_TER 382
382
SEQUENCE 382 AA; 38690 MM; 681E54BF7F41F3FC CRC64;
                                              Q9S640;
Q9S640;
01-MAY-2000
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01-WOV-1999 (TREMBLrel
01-MAY-2000 (TREMBLREL
FLAGELLIN (FRAGMENT)
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Bacteria; Proteobacteria; beta subdivision; Burkholderia
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SEQUENCE 302 AA; 29269 MW; 6E4E45D4009150FE CRC64;
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PROSITE; PS01125; ROK; UNKNOWN_1.
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EMBL; Z92772; CABO7107.1; -.
TUBERCULIST; RV0650; -.
INTERPRO; IPR000600; -.
DEAM. DECOLOR
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Matches 7
           Q9Z3A8
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Brett P.J., Woods D.E.;
"Vaccine Strategies for Immunoprophylaxis Against Melioidosis.";
Submitted (AUG-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AF081500; AAC31966.1; -.
INTERPRO; IPR001229; -.
INTERPRO; IPR001492; -.
                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS;
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                                                                                                                                                 170
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01-NOV-1998
01-NOV-1998
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Burkholderia.
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Burkholderia thailandensis.
Proteobacteria; beta
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"Variation of flagellin genes between virulent and non-virulent strains of Burkholderia pseudomallei.";

Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.

EMBL; AF078153; AAD24678.1;

INTERPRO; IPR01029;

INTERPRO; IPR01029;

INTERPRO; IPR001492;

IPFAM; PF00700; Flagellin_N; 1.

PFAM; PF00700; Flagellin_C; 1.

PRINTS; PR00207; FLAGELLIN

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Bucteria; Proteobacteria; beta subdivision; Burkholderia group;
Burkholderia.
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Burkholderia pseudomallei (Pseudomonas pseudomonas pseudomon
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Hales B.A., Morgan J.A.W., Hart C.A., Winstanley
"Variation in flagellin genes and proteins of Bur
J. Bacteriol. 180:1110-1118(1998).
EMBL; AF011370; AAC38199.1; -.
INTERPRO; IPR001029; -.
INTERPRO; IPR001029; -.
INTERPRO; IPR001192; -.
PFAM; PF00700; Flagellin_N; 1.
PFAM; PF00700; Flagellin_C; 1.
PRINTS; PR00207; FLAGELLIN.
PRINTS; PR00207; FLAGELLIN.
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STRAIN-DMS 3027, DMS 2555;

STRAIN-DMS 3027, DMS 2555;

Tungpradabkul S., Wajanarogana S., Tunpiboonsak S.,

"PCR-restriction endonuclease of the flagellin sequidentification of Burkholderia pseudomaliei and Burfrom clinical isolates ";

Mol. Cell. Probes 0:0-0(1999).

EMBL; AF080250; AAD12053-1; -.

EMBL; AF080259; AAD12053-1; -.

INTERPRO; IPR001229; -.
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PPAM; PP00700; Flagellin_C; 1
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NON_TER 383 383
SEQUENCE 383 AA; 38657 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 068143;
01-AUG-1998 (TrEMBLrel. 07,
01-AUG-1998 (TrEMBLrel. 07,
01-JUN-2000 (TrEMBLrel. 14,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Burkholderia cepacia (Pseudomonas cepacia).

Burkholderia cepacia (Pseudomonas cepacia).
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01-MAY-1999 (TrEMBLrel.
01-MAY-1999 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Burkholderia cepacia (Pseudomonas cepacia). Bacteria; Proteobacteria; beta subdivision; Burkholderia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. STRAIN-E243;
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                                                                                                                                                                                                                                            SEQUENCE
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                                                                Similarity 87.17; Conservative
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                                                                                                                                                                                                                                            38671 MW;
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15,
                                                            pred. No. 60;
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Burkholderia
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                                                                                                                             Length 384;
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d Burkholderia cepacia
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Search completed:
Job time: 543 sec
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Best Local S
Matches 6
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STRAIN-N186/21;
MEDLINE-94259308; PubMed-8200543;
de Mot R., Nagy I., Schoofs G., Vanderleyden
de Mot R., Nagy I., Schoofs G., Vanderleyden
"Sequences of the cobalamin biosynthetic general sequences of the sequences of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1996
01-NOV-1996
01-JUN-2000
                                                                                                                                                                                                                                                                                                                                              INTERPRO;
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=NI86/21;
MEDLINE=95138028; PubMed=7836301;
Nagy I., Schoofs G., Compernolle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rhodococcus sp.
Bacteria; Firmicutes;
Actinomycetales; Coryr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Degradation of the thiocarbamate herbicide EPTC (S-ethyl dipropylcarbamothioate) and biosafening by Rhodococcus sp. strain N186/21 involve an inducible cytochrome P-450 system and aldehyde
                                                                                                                                                                                                                                                                                                                                                                                            J. Bacteriol. 177:676-687(1995).
EMBL; L21196; AAC37129.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                          dehydrogenase."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 de Mot R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                        GGGVTQDG
                                                                                                                                                                                                                     l Similarity
6; Conserv
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                                                                                                                                                                                                                       Conservative
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                       June
                                                                                                                        371
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                       13,
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                       2001,
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01,
                       14:29:42
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Pred. No.
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Nocardiaceae; Rhodococcus.
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protein -9::

Minimum DB Maximum DB

Scoring table:

Title: Perfect score:

Sequence:

Sequence

36, Appl 126, App 121, Appl 121, Appl 116, Appl 116, Appl 37, Appl 48, Appl 48, Appl

4, Appli 4, Appli 17, Appl 21, Appli 3, Appli 3, Appli 117, App 119, App

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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seq length:
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1: /ggn2_6/ptodata/2/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*

3: /ggn2_6/ptodata/2/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*

5: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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      PCT-US01-05825A-24
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Copyright (c) 1993 - 2000
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                US-08-318-157B-2
US-08-331-39R-66
US-08-652-558-46
US-08-331-397B-66
US-08-331-397B-66
US-08-331-397B-55
US-08-401-908-4
US-08-331-397B-55
US-08-401-908-14
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US-08-466-710C-119
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US-08-468-73-C-119
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US-08-468-73-C-119
US-08-468-73-C-119
US-08-468-73-C-119
US-08-468-73-C-119
US-08-362-780-75
US-08-362-780-75
US-08-362-780-79
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Sequence 2, Appli
Sequence 66, Appl
Sequence 65, Appl
Sequence 55, Appl
Sequence 55, Appl
Sequence 57, Appl
Sequence 24, Appl
Sequence 27, Appl
Sequence 80, Appl
Sequence 80, Appl
Sequence 80, Appl
Sequence 80, Appl
Sequence 119, Appl
Sequence 119, Appl
Sequence 119, Appl
Sequence 119, Appl
Sequence 75, Appli
Sequence 77, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                       OPERMATE:

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/318,157B

FILING DATE: 05-OCT-1994

CLASSIFICATION: 424

ATTORNEY/AGENT INFORMATION:
NAME: SAXE, Bernhard D.
REGISTRATION NUMBER: 18733/464

TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5399
TELEX: 904136
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 119 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: protein
US-08-318-157B-2
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US-08-318-157B-2
                                               Query Match
Best Local Similarity
"hes 7; Conserv?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: HANSEN, HANS J.

APPLICANT: ARMOUR, KATHRYN L.

TITLE OF INVENTION: CDR-GRAFTED, TYPE III ANTI-CEA HUMANIZED
TITLE OF INVENTION: MOUSE MONOCLONAL ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 3000 K S
CITY: Washington
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                   1 GGGLVQDG
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   GGGLVQSG
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87.5%;
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US-08-053-451B-126

US-08-497-312-21

US-08-765-783A-105

US-08-211-202-116

US-07-942-245-37

US-08-428-197-48

US-08-665-202-31

PCT-US93-10555-48

US-08-428-197-4

PCT-US93-10555-4

PCT-US93-10555-4

PCT-US93-10555-4

PCT-US93-10555-3

PCT-US93-10555-3

US-08-428-197-3

US-08-428-197-3

US-08-428-197-3

PCT-US93-10555-3
                                                           Score 37; DB pred. No. 8.1; 0; Mismatches
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US-08-545-809A-129
US-08-211-202-134
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Result

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Score

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Gaps

08-331-398A-66

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US-08-652-558-42
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                                                                         Sequence 42, Applicat Patent No. 5861155
GENERAL INFORMATION:
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Best Local
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ZIP: 94105-14y,
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC COMPATIBLE
TYPEM: PC-DOS/MS-DOS
TABASE #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (415) 543-
TELEFAX: (415) 543-50
INFORMATION FOR SEQ ID NO:
                         APPLICANT: LIN, AUG
TITLE OF INVENTION:
TITLE OF INVENTION:
CORRESPONDENCE ADDRESS
                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/596,289
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/331,398A FILING DATE: 28-OCT-1994 CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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8 GGGLVQPG 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                    Local Similarity es 7; Conserv
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APPLICANT: Pai,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 015280-126110US
                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: San Francisco
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                                                                                                      Application US/08652558
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One Market Plaza, Steuart Street Plaza
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FitzGerald, David
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                                                          AUGUSTINE YEE-THARN
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               THEREOF: 52
                                    HUMANIZED ANTIBODIES AND USES
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87.5%;
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Pred. No. 1
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RESULT 4
US-08-331-397B-66
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Best Local Similarity
Thes 7; Conserve
TELEFAX: 61/-3*, 10: 42
INFORMATION FOR SEQ ID NO: 42
SEQUENCE CHARACTERISTICS:
FRIGTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 66,
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FILING DATE: JUNE 6, 1996
PRIOR APPLICATION DATA:
APPLICATION UNBER: PCT/IB94/00387
FILING DATE: NOVEMBER 21, 1994
ATTORNEY/AGENT INFORMATION:
NAME: YANKWICH, LEON R.
REGISTRATION NUMBER: 95,497-L
TELECOMMUNICATION INFORMATION:
THE FERENCE/DOCKET NUMBER: 95,497-L
TELECOMMUNICATION INFORMATION:
                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Wordperfect 6.1

OURRENT APPLICATION NUMBER
APPLICATION NUMBER
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APPLICATION NUMBER
APPLICATION NUMBER
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                                                                              APPLICATION NUMBER: US/08/331,397B
FILING DATE: 28-OCT-1994
                                                                                                                                                                                                                                                 ADDRESSEE: Townsend and Townsend and Crew STREET: One Market Plaza, Steuart Street Plaza CITY: San Francisco
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STRANDEDNESS: sir
TOPOLOGY: linear
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STREET: 75 STATE STREET, 231
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87.5%;
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Pred. No. 1
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Best Local Similarity 87.5%;
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                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Vers
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/759,804A
FILING DATE: 03-DEC-1996
CLASSIFICATION: 536
PRIOR APPLICATION: 536
PRIOR APPLICATION DATA:
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ATTORNEY/ALEM. ELLen L.
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 015280-126140US
TELECOMMUNICATION INFORMATION:
(415) 576-0200
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APPLICANT:
APPLICANT:
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LENGTH: 15 amino acids
                                                                                                                                                             APPLICATION NUMBER: US 07/767,331 FILING DATE: 30-SEP-1991 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                   FILING DATE: 28-OCT-
PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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                                                                                                     APPLICATION NUMBER: US 0 FILING DATE: 12-OCT-1990 ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US 07/596,289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Tumor-Specific Antibody Fragments, TITLE OF INVENTION: Fusion Proteins, and Uses Thereof
                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/331,398 FILING DATE: 28-OCT-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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FitzGerald, David J.
Brinkmann, Ulrich
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                                                                                                                              UMBER: US 07/596,289
12-OCT-1990
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Pred. No.
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Best Local Similarity
Watches 7; Conserva
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                                                                                                           TELEFAX: (415) 543-50
INFORMATION FOR SEQ ID NO:
TOPOLOGY: 1i
MOLECULE TYPE:
)8-331-398A-55
                                                                                                                                                      NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 015280-126110US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                       APPLICATION NUMBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION UNBER: US 07/596,289
FILING DATE: 12-OCT-1990
                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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LENGTH: 15 amino acids
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: Townsend and Townsend and Crew
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                                                                                              SEQUENCE CHARACTERISTICS:
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STATE: California
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STRANDEDNESS:
                                              STRANDEDNESS:
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FitzGerald, David
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Query Match

83.78;

Score 36;

DB 1;

Length 18;

Best Local Similarity
Matches 7; Conservat

Conservative

87.5%;

Pred. No. 1.7; 0; Mismatches

1;

Indels

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Gaps

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US-08-331-397B-55
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Best Local Similarity
Thes 7; Conserv
                                                                                                                                                                                                                                                                             ; MOLECULE TYPE: I
; ORIGINAL SOURCE:
US-08-401-908-14
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US-08-401-908-14
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                                                                        Sequence 55, App
Patent No. 59817
                                                          GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Warren M. Cheek, Jr.
REGISTRATION NUMBER: 33,367
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
                                             APPLICANT:
                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 536 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Diskette, 3.5 inch, 1.44 mb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 600
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                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: Sir
                                                                                                                                                                         1 GGGLVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                             LENGTH:
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    ICANT: Pastan,
ICANT: Benhar,
E OF INVENTION:
E OF INVENTION:
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                                                                                     Application US/08331397B
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                                                                                                                                                                                                                                                                                                                     linear
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                                                                                                                                                                                                                                                                                         peptide
: heavy chain of C179
                                                                                                                                                                                                                                                                                                                               single
Chimeric and Mutationally Stabilized Tumor-
Specific Antibody Fragments, Fusion Proteins,
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87.5%;
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Pred. No. 1
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US-08-759-804A-54

; Sequence 54, Application US/08759804A

; Patent No. 5990296
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Best Local Similarity
Matches 7; Conserv
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 543-9600
TELEPAX: (415) 543-5043
INFORMATION FOR SEQ ID NO: 55:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07,
FILING DATE: 30-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07,
FILING DATE: 12-OCT-1990
ATTORNEY/AGENT INFORMATION:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and
                                                                                                                                                                         TITLE OF INVENTION:
                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                         APPLICANT:
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PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/767,331
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CORRESPONDENCE: Townsend and Townsend and Crew
ADDRESSEE: Townsend and Townsend and Crew
APRACE Plaza, Steuart Street Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
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                                                                            STREET: Two Embarcac
CITY: San Francisco
STATE: California
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                                                               COUNTRY:
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FitzGerald, Davi
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12-OCT-1990
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                                                                                                                                                                         Fusion
                                                                                                                                                                Tumor-Specific Antibody Fragments, Fusion Proteins, and Uses Thereof
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                                                                                                                                                                                                                                   David J.
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                                                                                                        Townsend and Crew LLP Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    015280-126120US
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Pred. No. 1
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PC-DOS/MS-DOS

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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: SUB-
TITLE OF INVENTION: PHY:
TITLE OF INVENTION: MAMM
TITLE OF INVENTION: MAMM
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                   STREET: 2100
CITY: Washington, E
STATE: D.C.
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NAME: Weber, Ellen L.
REGISTRATION NUMBER: 32,762
REFERENCE/DOCKET NUMBER: 015280-126140US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 28-OCT-1994
PRIOR APPLICATION DATA:
APPLICATION UNBER: US 07/767,331
FILING DATE: 30-SEP-1991
PRIOR APPLICATION UNBER: US 07/596,289
FILING DATE: 12-OCT-1990
REGISTRATION NUMBER: 30,764
REFERENCE/DOCKET NUMBER: A-6901
TELECOMMUNICATION INFORMATION:
                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
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PRIOR APPLICATION NUMBER: US 08/331,398
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                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: Patentl
                                                                                       APPLICATION NUMBER: US/08/859,931A FILING DATE: 21 MAY 1997 CLASSIFICATION: 514
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2100 Pennsylvania Avenue, N.W., Suite 800
1shington, D.C.
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(415) 576-0300
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Pred. No.
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US-08-053-451B-113
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Query Match 83.7
Best Local Similarity 87.9
Matches 7; Conservative
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Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Halluin, Albert P.
REGISTRATION NUMBER: 25,227
REFERENCE/DOCKET NUMBER: 7606
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-854-3660
                                                                                                                                                                                                                                                                  TELEFAX: 415-854-3694
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/053,451B
FILING DATE: 26-APR-1993
CLASSIFICATION: 424
CLASSIFICATION: 424
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LENGTH: 20 amino acids
TYPE: amino acid
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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                                                                                            LOCATION: 2..3
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                          NAME/KEY: Modified-site LOCATION: 2..3
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TOPOLOGY: unl
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STATE: New Yor
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o. 5955584
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                83.7%;
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                                                                                             /note=
Gln"
 Score 36; DB; Pred. No. 1.9; 0; Mismatches
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                              Length 20;
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   Indels
   0;
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   Gaps
   0;
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GGGLVQDG

8

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RESULT 13
US-08-467-282B-80
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            Sequence 80, Application US/08467282B Patent No. 5800988 GENERAL INFORMATION:
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US-08-471-780C-80
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                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 202-408-4400 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
ORIGINAL SOURCE:
 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FR 92402326.0 FILING DATE: 21-AUG-1992 PRIOR APPLICATION DATA: APPLICATION NUMBER: FR 93401310.3 FILING DATE: 21-MAY-1993 ATTORNEY/ACENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 06-JUN-1
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Casterman, Ceci.
APPLICANT: Hamers, Raymond
TITLE OF INVENTION: Immuno
                                                                                                                                                                                               Local Similarity
les 7; Conserv
                                                                                                                                                                                                                                                                                                                                                        LENGTH: 26 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 33,332
REFERENCE/DOCKET NUMBER: 04958.0008-00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Potter, Jane E.R. REGISTRATION NUMBER: 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INSULATION NUMBER: US US APPLICATION NUMBER: US US APPLICATION NUMBER: US US APPLICATION NUMBER: FR 92402326.0
                                                                                                                                                            1 GGGLVQDG 8
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                                                                                                                                 8 GGGLVQPG 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
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Casterman, Cecile
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                                                                                                                                                                                                                                                                                                                                       linear
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1300 I Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                       202-408-4400
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87.5%;
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Pred. No. 2
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RESULT 14
US-08-471-282A-80
; Sequence 80, Application US/08471282A
; Patent No. 5840853
; Patent No. 5840853
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Best Local Similarity 8/...
""thes 7; Conservative
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                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Casterman, Cecile
APPLICANT: Hamers, Raymond
TITLE OF INVENTION: Immunogle
NUMBER OF SEQUENCES: 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/106,944
FILING DATE: 17-AUG-1993
APPLICATION NUMBER: FR 92402326.0
FILING DATE: 21-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 93401310.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner
STREET: 1300 I Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
ORIGINAL SOURCE:
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LENGTH: 26 amino acids
                                                     STATE: D.C. COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION: Immunoglobulins Devoid of Light Chains
NUMBER OF SEQUENCES: 130
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner
STREET: 1300 I Street, N.W.
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CITY: Washington
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8 GGGLVQPG 15
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REFERENCE/DOCKET NUMBER: 04958.0008-00000
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87.5%;
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Pred. No. 2
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0;

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/O FILING DATE: 06-JUN-1995 CLASSIFICATION: 536

US/08/471,282A

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Best Local Similarity 8/..
Thes 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 80, Application US/08466710C Patent No. 5874541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/106,944
FILING DATE: 17-AUG-1993
APPLICATION NUMBER: FR 92402326.0
FILING DATE: 21-AUG-1992
PRIOR APPLICATION NUMBER: FR 93401310.3
FILING DATE: 21-MAY-1993
FILING DATE: 21-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
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TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO:
         CLASSIFICATION:
CLASSIFICATION:
PRIOR APPLICATION NUMBER: US/08/106,944
APPLICATION NUMBER: FR 92402326.0
                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 26 amino acids
TYPE: amino acid
STRANDEDNESS: single
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REGISTRATION NUMBER: 33,332
REFERENCE/DOCKET NUMBER: 04:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-08-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Casterman, Cecile
APPLICANT: Hamers, Raymond
TITLE OF INVENTION: Immunoglobulins Devoid of Light Chains
NUMBER OF SEQUENCES: 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 21-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: POLLER, Jane E.R.
                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 20005-3315
                                                                                                                                                                                                                                                                                                      STREET: 1300 I S
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
APPLICATION NUMBER: FR 9:
FTI.ING DATE: 21-AUG-1992
                                                                                                                              APPLICATION NUMBER: US/08/466,710C
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    Finnegan, Henderson, Farabow, Garrett & Dunner
    1300 I Street, N.W.

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87.5%;
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Pred. No. 2
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SEQUENCE CHARACTERISTICS:
LENGTH: 26 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
ORGANISM: Camelus dromed
US-08-466-710C-80
Search completed: June 13, 2001, 14:27:06 Job time: 627 sec
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                                                                                                                           Query Match
Best Local Similarity
Matches 7; Conserv
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 93401310.3
FILING DATE: 21-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 21-MAY-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                           TELEPHONE: 204-10
TELEPHONE: 202-408-4400
TO NO:
                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 049
                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Potter, Jane REGISTRATION NUMBER:
                                                                       8 GGGLVQPG 15
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                                                                                                                                              Score 36;
Pred. No. 2
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                                                                                                                                                          Length 26
                                                                                                                                  Indels
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Title:
Perfect score:
Sequence:
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No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Run on:
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                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                seq length: 0
seq length: 2000000000
       protein search, using sw
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1: /SIDS6/gcgdata,
2: /SIDS6/gcgdata
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| SIDS6/gcgdata/geneseq/geneseqp/AA1990.DAT:*
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/SIDS6/gcgdata/geneseq/geneseqp/AA1987.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1988.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*
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/SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*
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   W94487
Y79130
R87049
B40112
R34279
R52066
R72074
W59614
B40084
B40085
                                                                                                                                                                                                                                                             SUMMARIES
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Human TNF binding
Heavy chain variab
DP54 VH region. H
Anti-RSV F protein
Anti-hIL12 antibod
Anti-hIL12 antibod
                                                                                                                     Human adult heart
Human adult heart
Human group III he
Anti-hIL12 antibod
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115 115 116 116 116 116 116 116 116 116	21 21 21
B40134 B40134 B40137 B40137 B40139 B40139 B40140 B40140 P4	B40087 B40094 B40095 B40096 B40113
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an a	hIL12 antibod hIL12 antibod hIL12 antibod hIL12 antibod hIL12 antibod
tribodd tribod	

## ALIGNMENTS

Human adult heart zonulin N-terminal peptide

21-APR-1999 (first entry)

W94487;

W94487 standard; peptide;

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                                          New purified zonulin - which is capable of reversibly opening mammalian tight junctions, used for enhancing the delivery of agents across intestinal and nasal mucosa and blood brain barrier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zonulin; mammalian tight junction; zonula occludens toxin; ZOT; Vibrio cholerae; vaccine; cholera toxin; polyclonal antibody; intestinal mucosa; nasal mucosa; blood brain barrier.
                                                                                                                                                                                                                                                          WPI; 1999-070123/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9852415-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0859931.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US07636
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Claim 2; Page 45; 64pp; English.

of 47 kD, as

describes pure zonulin which has an kb, as determined by SDS-PAGE, which

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RESULT
Y79130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cc recognised by both anti-tau polyclonal antibody and by anti-zonula cc occludens toxin (ZOT) polyclonal antibody, and is capable of reversibly cc opening mammalian tight junctions. Zonulin proteins function as copening mammalian tight junctions. Zonulin proteins function as cc opening mammalian tight junctions. They can be used for enhancing the absorption of therapeutic agents across tight cc for enhancing the absorption of therapeutic agents across tight junctions of the blood brain barrier. Zonulin can be used with agents such as drugs, cc e.g. lidocaine, adenosine, dobutamine, dopamine, epinephrine, cc norepinephrine, phentolamine, doxapram, alfentanil, dezocin, nalbuphine, cc mivacurium, succinylcholine, cytarabine, mitomycin doxorubicin, cc mivacurium, succinylcholine, cytarabine, mitomycin doxorubicin, cc etoxitin, cefenicid, cefentazole and aztreonam, a hormone e.g. cc interferon-alpha, interferon-beta, interferon-gamma, interleukin-1 cc (IL-1), IL-2, IL-4, IL-8, polyvalent IgG, specific IgG, IgA, or IgM. cc be used to assay for zonulin in body tissue or fluids, or in affinity-purification of zonulin. The present sequence represents an N-terminal xxx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                           New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
            Example
                                                                                              WPI; 2000-205565/18
                                                                                                                                                                                     03-AUG-1998;
                                                                                                                                                                                                                                                                                                                        Zonulin; antagonist; zonula occludens toxin receptor; human; blood-brain barrier; antiinflammatory; gastrointestinal inflammation; therapy.
                                                                                                                                                      (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                 28-JUL-1999;
                                                                                                                                                                                                                                                                         WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                 Human adult heart zonulin N-terminal sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y79130 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 EVQLVESGGGLVQPGGSLRL
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            ω
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20; Conserv
    Fig 6; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                  98US-0127815
                                                                                                                                                                                                            99WO-US16683.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 98;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.5e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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Query Match
Best Local Similarity

100.0%; Score 98; I ilarity 100.0%; Pred. No. 3. Conservative 0; Mismatches

Mismatches

DB 17; .9e-08; s 0;

Length 30;

0

Gaps

0,

Matches

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RESULT
R87049
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                       Framework regions (R87049-52) of human group III (gp3) germ line antibody heavy chain showed homology to corresponding regions (R87053-56, respectively) of the rat anti-human interleukin-5 monoclonal antibody 39D10 heavy chain (see R87039). This homology was utilised in the prodn. of a humanised 39D10 vH (R87058) in which rat 39D10 vH complementarity determining regions were grafted
Sequence
                                                                                                                          Example 3; Fig 4; 69pp; English.
                                                                                                                                                            Anti-human IL-5 recombinant antibody - useful for preventing or reducing eosinophilia and for treating certain allergic diseases
                                                                                                                                                                                                                                     Athwal DS,
                                                                                                                                                                                                                                                           (CLLT ) CELLTECH THERAPEUTICS LTD.
                                                                                                                                                                                                                                                                                        17-JUN-1994;
                                                                                                                                                                                                                                                                                                                  16-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                      W09535375-A1
                                                                                                                                                                                                                                                                                                                                                                                                                             Humanised antibody; interleukin-5; IL-5; recombinant antibody; antibody engineering; monoclonal antibody; MAb; 39D10; CDR; complementarity determining region; heavy chain; framework;
                                                                                                                                                                                                                                                                                                                                              28-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                         eosinophilia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human group III heavy chain framework 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R87049 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is that of the N-terminal region of adult human heart zonulin. The N-terminal sequences of human adult and foetal zonulins (see Y9130-36) were compared with Vibrio cholerae zonula occludens toxin (ZOT) to identify a common motif thought to be involved in receptor binding. Peptide antagonists (see Y79105-29) based on this motif are useful as antiinflammatory agents for treatment of gastrointestinal inflammation, and for treatment of conditions associated with breakdown of the blood-brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    evqlvesggglvqpggslrl
                      human gp3
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                                                                                                                                                                                                                                    Bodmer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 AA;
AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                                                                                                                                                95WO-GB01411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide;
                                                                                                                                                                                                                                   MW,
                      framework.
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Pred. No. 2.5e-08;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
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100.0%;

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B4011
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RESULT
                                                                                                                                                                                                                                                              This invention relates to a new human antibody specific for human interleukin-12 (II-12). The invention also includes antigen binding portions that bind to II-12. Sequences B39485-B39516 represent human anti-II-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are given in B39517-B39560 and B40068-B40149. Sequences B39561-B39771 represent anti-II-12 CDR3 related amino acid sequences, B39772-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences are given in B40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in C61062-C61071. The antibody of the invention is a neutralising antibody and has antirheumatic; antiarthritic; antisticutation and construction and construction of the antibodies of the invention are given in C61062-C61071. The antibody of the invention is a neutralising antibody and has antirheumatic; antiarthritic; antisticutation.
                                                                                                               neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antiparatic; antiparasitic; antiparatic; antiparat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complementarity determining region; CDR; antirheumatic; antiarthritic; antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial; immunosuppressive; Crohn's disease; multiple sclerosis; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kaymakcalan Z, Labkovs
Veldman GM, Venturini
Derbyshire EJ, Carmen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease and multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Croh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Salfeld JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GEMY )
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-MAR-2000; 2000WO-US07946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200056772-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
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                                                                                        used in the manufacture
                                                            [L-12 disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75; Page 121; 377pp; English.
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GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Roguska M, Pas
Z, Labkovsky B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
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                                                                                        of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Paskind M. Banerjee S. Tracey DE,
yy B. Sakorafas P. Friedrich S. My
A. Warne NW. Widom A. Elvin JG, D
S. Smith S. Holtet TL, Du Fou SL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97
                                                                                     pharmaceutical composition
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                                                                                     can also be
treat human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ħ
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                                                                                                                                                                                                                                                                                                       antibody
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Query Match

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                                                                                                                                                                                                                                                       24-MAR-1992;
24-MAR-1992;
15-MAY-1992;
                             The sequence is that of the heavy chain DP-51 derived from the germline human VH gene DP-51 (from the VH3 family Tomlinson et al 1992) of antibody fragments binding to human TNF. It may be used as part of a method of producing chimeric mouse-human antibodies or fragments which have the same binding specificity as a parent Ab but have increased human characteristics, preventing anti-glob
 Sequence
                                                                                                                                                                                                                                                                                                                                           01-APR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human TNF
                                                                                                                                                                               WPI; 1993-117534/14
                                                                                                                                                                                                    Baier M,
                                                                                                                                                                                                                                                                                        23-SEP-1991;
25-SEP-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chimeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R34279
                   response
                                                                                                    Example; Fig 6; 109pp; English
                                                                                                                           human characteristics
                                                                                                                                                                                                                        (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY (MEDI-) MEDICAL RES COUNCIL.
                                                                                                                                                                                                                                                                                                                                                              W09306213-A
                                                                                                                                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                                                                                                                                Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Monoclonal antibody; anti-globulin response; VL gene;
                                                                                                                                     for reducing anti globulin responses
                                                                                                                                              comprises
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                    in humans
                                                                                                                                    human antibody polypeptide dimer specific for antigen use of chain shuffling using phage expression, useful ing anti globulin responses in humans for increased
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           binding antibody
                                                                                                                                                                                                    Hoogenboom HRJM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mouse-human antibodies; antibody; prevention;
98 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                  92GB-0006318
92GB-0006372
                                                                                                                                                                                                                                                                                      91GB-0020252.
91GB-0020377.
                                                                                                                                                                                                                                                                                                                       92WO-GB01755
                                                                                                                                                                                                                                                        92WO-GB00883
                                                                                                                                                                                                                                                                                                                                                                                            /note=
67..98
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36..49
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31..35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                 "Framework
                                                                                                                                                                                                                                                                                                                                                                                                      "Complementarity determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Framework region FR1"
                                                                                                                                                                                                                                                                                                                                                                                                                          "Framework region FR2"
                                                                                                                                                                                                                                                                                                                                                                                                                                               "Complementarity determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
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                                                                                                                                                                                                    Jespers LSAT,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. 1.4e-07;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                  region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chain
                                                                                                                                                                                                    Winter
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                                                                                                                                                                                                                                                                                                                                                                                                      region CDR2'
                                                                                                                                                                                                                                                                                                                                                                                                                                               region CDR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
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В γQ

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Matches

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Gaps

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Modification of a rodent antibody (Ab) or fragment by resurfacing in order to produce a humanised rodent Ab can be determined by calculating homology between murine and human Ab antibody surfaces. In order to test were set up: (1) traditional loop grafting; (2) resurfacing approach sequences with most similar chain, and (3) resurfacing approach using human anti-N901 Ab (see R52061). Experiment 3 was carried out using the present with 74 percent homology with anti-N901 Ab (see R52061). Experiment 3 was carried out using the present with 74 percent homology with anti-N901 Ab. N901/PtO123 (R52067) was prepled. by resurfacing. Sequence numbering starts at position 118 in
                                                                                                                                                                                                Method of resurfacing of rodent antibodies to produce humanised antibody forms - for producing non-human antibodies with improved therapeutic efficiency by presenting human surface on V-region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                               Example 1; Fig 4B; 230pp; English.
                                                                                                                                                                                                                                                                 WPI; 1994-120230/15.
                                                                                                                                                                                                                                                                                                                    (PEDE/) PEDERSEN J T. (IMMU-) IMMUNOGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antibody; humanised; murine; human; heavy chain; light; variable; framework region; complementarity determining region; reshaping; modelling; surface residue; modify.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Heavy chain variable region of human PL0123 antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R52066 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pedersen JT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                         92US-0942245
                                                                                                                                                                                                                                                                                                                                                                                   93EP-0307051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
60..98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= framework_region_1
/note= "FR 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= complementarity_determining_region_1
/note= "CDR 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "FR 3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "FR 2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "CDR 2"
                                                                                                                                                                                                                                                                                          Rees
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98
                                                                                                                                                                                                                                                                                       AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
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Pred. No.
                                                                                                                                                                                                                                                                                    Roguska MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  red. No. 1.4e-07;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 14;
                                                                                                                                                                                                                                                                                   Searle SMJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 98;
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                 Qγ
                                                                                                              Query Match
Best Local S
Matches 20
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R72074
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                                                                                                                       I- and H-chain DNA was amplified by PCR from Graves' orbital tissue and clones encoding autoimmune-associated immunoglobulin fragments were obtained. 2/15 clones of H chain (IgG1) genes showed homology to the germline gene DP54 (089332), which encodes the protein given in R72074. The DNA (089333) and corresp. amino OF7H1.19, are provided.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                            Sequence
                                                                                                                                                                                                                                                         Graves' ophthalmopathy-associated monoclonal antibody -
by molecular cloning of immunoglobulin genes by PCR
                                                                                                                                                                                                                                    Disclosure; Page 72; 94pp; English.
                                                                                                                                                                                                                                                                                                          WPI; 1995-139383/18.
N-PSDB; Q89332.
                                                                                                                                                                                                                                                                                                                                                   Mclachlan SM,
                                                                                                                                                                                                                                                                                                                                                                        (NICH-) NICHOLS INST DIAGNOSTICS.
                                                                                                                                                                                                                                                                                                                                                                                                      22-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
Region
                                                                                                                                                                                                                                                                                                                                                                                                                                 22-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09508336-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Graves ophthalmopathy associated immunoglobulin protein; orbital antigen; monoclonal antibody; heavy chain; H chavariable region; autoimmunity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DP54 VH region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R72074;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R72074 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
EVQLVESGGGLVQPGGSLRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                            20;
                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                            98
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                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                Rapoport B;
                                                                                                                                                                                                                                                                                                                                                                                                   9308-0124469
                                                                                                                                                                                                                                                                                                                                                                                                                             94WO-US10756
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= CDR1
49..67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label- CDR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein;
                                                   100.0%;
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100.0%; F
ative 0;
           20
                                     0,
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                                  Score 98; DB
Pred. No. 1.4
); Mismatches
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Pred. No. 1.4e-07;
Mismatches 0;
                                              1.4e-07;
                                                             DB 16;
                                                        Length 98;
                               Indels
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RESULT
R52066

ID R65
AC R5
AC

EP592106-A1

Region Region Region Region

Region

Homo sapiens

11-OCT-1996

Guild BC,

produced

Вb

evqlvesggglvqpggslrl 20

0;

Gaps

0;

09-SEP-1992; 07-SEP-1993;

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RESULT
B40084
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W59614
axu
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                                                                                                                                                                                                             This is the heavy chain amino acid sequence of germline (GL) pp58 antibody. The invention relates to the construction and use of human MADs specific for the fusion (F) protein of respiratory c syncytial virus (RSV) to passively treat, prevent or detect RSV infection. Hul9A, Hul9B, Hul9C and Hul9D MADs are claimed. These are reshaped human antibodies comprising a heavy chain selected from 19A, 19B, 19C or 19D (see W59615-18), which are based on the GL Dp58 sequence, and a light chain selected from 19A, 19B, 19C or 19D (see W59620-21). Such engineered antibodies are neutralising; they inhibit virus growth in viror and in vivo in animal models of RSV infection. Nucleic acids endough the human MADs, recombinant plasmids (see V41427-33) and host cells (e.g. COS, CHO, myeloma) or are provided.
                                                                                                                                         Query Match
Best Local Similarity
Matches 20; Conserv
B40084;
                        B40084 standard; Protein; 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Monoclonal antibody; human; Hu19B; engineered antibody; RSV; respiratory syncytial virus; fusion protein; infection; complementarity determining region; CDR; therapy; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W59614 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Monoclonal antibodies reactive with Respiratory Syncytial Virus - useful for detection, prevention and treatment of RSV infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1998-286600/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (SMIK ) SMITHKLINE BEECHAM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-OCT-1998 (first entry)
                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-OCT-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09819704-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anti-RSV F protein Hul9 heavy chain GL Dp58
                                                                                                                 -
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                                                                                                     EVQLVESGGGLVQPGGSLRL
                                                                                       evqlvesggglvqpggslrl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dillon
                                                                                                                                                                                                             98 AA;
                                                                                                                                         100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96US-0030149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97WO-US19203
                                                                                                                                                                                                                                                                                                                                                                                                                           2; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= CDR1
50..66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein; 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label- CDR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Porter TG,
                                                                                                                20
                                                                                       20
                                                                                                                                           0
                                                                                                                                                     Score 98; DB 19;
Pred. No. 1.4e-07;
                                                                                                                                           Mismatches
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                                                                                                                                           Indels
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                                                                                                                                           Gaps
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B40085 RESULT

10

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B40085 standard; Protein; 98

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EVQLVESGGGLVQPGGSLRL evqlvesggglvqpggslrl

20

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Indels

0

Gaps

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CC This invention relates to a new human antibody specific for human CC interleukin-12 (IL-12). The invention also includes antigen binding CC portions that bind to IL-12. Sequences B39485-B39516 represent human CC anti-IL-12 antibody heavy and light chain complementarity determining CC amino acid sequences. Other variable region amino acid sequences are GC qiven in B39517-B39500 and B40068-B40149. Sequences B39561-B39771 CC represent anti-IL-12 CDR3 related amino acid sequences B39772-B40063 CC represent other CDR sequences. Light chain CDR3 consensus sequences are CC given in B40064-B40067. Primers used in the identification and CC construction of the antibodies of the invention are given in CC C61062-C61071. The antibody of the invention is a neutralising antibody CC and has antirheumatic; antiarthritic; antiasthmatic; cardiant; antiparasitic; CC antibacterial and immunosuppressive activity. The antibodies or CC antiparatial detrimental release of human IL-12, especially Crohn's CC disease, multiple sclerosis and rheumatoid arthritis. They can also be CC used in the manufacture of a pharmaceutical composition to treat human CC III-19 disorders
Query Match
Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's disease and multiple sclerosis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kaymakcalan Z, Labkovsky
Veldman GM, Venturini A,
Derbyshire EJ, Carmen S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant;
antiparasitic; antibacterial; immunosuppressive; Crohn's disease;
                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 75; Page 121; 377pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Salfeld JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200056772-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complementarity determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-638250/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BADI ) BASF AG. (GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-MAR-2000; 2000WO-US07946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; neutralising antibody; interleukin-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-hIL12 antibody H chain V region amino acid sequence
                                                                                                                                 IL-12 disorders.
/ Match 100.0%;
Local Similarity 100.0%;
nes 20; Conservative 0;
                                                                                             98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Roguska M., Paskind M., Banerjee S., Tracey DE, Wh
Z., Labkovsky B., Sakorafas P., Friedrich S., Myles
Venturini A., Warne NW., Widom A., Elvin JG, Dunca
J., Carmen S., Smith S., Holtet TL, Du Fou SL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                             AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0126603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            region;
Score 98; DB Pred. No. 1.4 0; Mismatches
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l arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDR; antirheumatic;
                 DB 21;
1.4e-07;
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                                    Length 98;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               White M;
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cc region (CDR) amino acid sequences, and also includes variable region camino acid sequences. Other variable region amino acid sequences are given in B39517-B39560 and B40068 B40149. Sequences B39561-B3971 CC represent anti-II-12 CDR3 related amino acid sequences, B3972-B40063 CC represent other CDR sequences. Light chain CDR3 consensus sequences are CG given in B40064-B40067. Primers used in the identification and CC construction of the antibodies of the invention are given in CC construction antiarthritic; antiarthritic; antisclerotic; antiinflammatory; CC and has antirheumatic; antiarthritic; antisclerotic; antiinflammatory; CC neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; CC antibacterial and immunosuppressive activity. The antibodies or antibacterial and immunosuppressive activity. The antibodies or CC antiper-binding fragments are useful in the treatment of disorders associated with detrimental release of human II-12, especially Crohn's CC disease, multiple sclerosis and rheumatoid arthritis. They can also be CC used in the manufacture of a pharmaceutical composition to treat human CC II-12 disorders
                                                                                                                                  Matches
                                                                                                                                                                  Best
                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences B39485-B39516 represent human anti-IL-12 antibody heavy and light chain complementarity determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antisclerotic; neuroprotective; antiparasitic; antiabatterial; antiparasitic; antibatterial; antiparasitic; antibatterial; anunosuppressive; Crohn's disease; multiple sclerosis; rheumatoid arthritis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's disease and multiple sclerosis -
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evqlvesggglvqpggslrl
                                                                                                                                                            Similarity
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GENETICS INST INC.
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                                                                                                                              Conservative
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Z, Labkovsky B,
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(Y B, Sakorafas P, Friedrich S, Myles
N, Warne NW, Widdom A, Elvin JG, Dunca
S, Smith S, Holtet TL, Du Fou SL;
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Pred. No. 1.4e-07;
                                                                                                                           Mismatches
                                                                                                                                                                               Length 98;
                                                                                                                     Indels
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Mismatches

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                                                                                                           This invention relates to a new human antibody specific for human control interleukin-12 (IL-12). The invention also includes antigen binding the portions that bind to IL-12. Sequences B39485-B39516 represent human control in the IL-12 antibody heavy and light chain complementarity determining cregion (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are created in B39517-B39560 and B40068-B40149. Sequences B39561-B39771 crepresent anti-IL-12 CDR3 related amino acid sequences, B39772-B40063 crepresent other CDR sequences. Light chain CDR3 consensus sequences are created amino acid sequences are created amino acid sequences and created amino acid sequences are construction of the antibodies of the invention are given in B40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in CC construction of the antibodies of the invention is a neutralising antibody can dhas antirheumatic; antiarthritic; antisclerotic; antiarthritic; antibodies or antiporotective; antiporiatic; antiarthmatic; cardiant; antiparasitic; antiparation of the antiporiatic; antiparation of disorders castivity. The antibodies or antiporotective; antiporessive activity. The antibodies or antiporotective antiporessive activity. The antibodies or associated with detrimental release of human IL-12, especially Crohn's cused in the manufacture of a pharmaceutical composition to treat human current control of the antipoles of a pharmaceutical composition to treat human current control of the control of a pharmaceutical composition to treat human current control of a pharmaceutical composition to treat human current control of the control of a pharmaceutical composition to treat human current control of the control of a pharmaceutical composition to treat human current control of the control of a pharmaceutical composition to treat human current control of the control of a pharmaceutical composition to treat human current con
    Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human antibody specific for human interleukin-12 (IL-12) used treat disorders characterized by aberrant IL-12 expression e.g. Cr disease and multiple sclerosis.
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Kaymakcalan Z, Labkovsky B, Sakorafas P, Friedrich S, Myles
Veldman GM, Venturini A, Warne NW, Widdom A, Elvin JG, Dunca
Derbyshire EJ, Carmen S, Smith S, Holtet TL, Du Fou SL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BADI )
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GENETICS INST INC
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    AA;
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Duncan
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RESULT 12 B40087

B40087 standard; Protein; 98

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Best Local S
Matches 20
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Derbyshire EJ,
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                                                                                                                                                                                                                     IL-12 disorders.
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(GEMY ) GENETICS INST INC.
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1 EVQLVESGGGLVQPGGSLRL
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                                                                   Similarity
20; Conser
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                                                                   Conservative
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J, Carmen S,
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                                                                                     100.0%;
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ty B, Sakorafas P, Friedrich S, Myles A;
N, Warne NM, Widom A, Elvin JG, Duncan AR
3, Smith S, Holtet TL, Du Fou SL;
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                                                               Score 98; DB 21;
Pred. No. 1.4e-07;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         aberrant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDR; antirheumatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IL-12;
                                                                                                         Length 98;
                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antiarthritic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Duncan AR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              613.
                                                                 Gaps
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RESULT
B40094
.ID B4
XX
AC B4
XX
This invention relates to a new human antibody specific for human control interleukin-12 (IL-12). The invention also includes antigen binding comportions that bind to IL-12. Sequences B39485-B39516 represent human compositions that bind to IL-12. Sequences B39485-B39516 represent human compositions that bind to IL-12. Sequences B39485-B39516 represent human composition acid sequences are specific compositions acid sequences. Other variable region amino acid sequences are composition and sequences. Other variable region amino acid sequences are composition in B39517-B3950 and B40088-B40149. Sequences B39517-B39719 composition in B39517-B3950 and B40088-B40149. Sequences B39517-B39719 composition of the antibodies of the invention are given in B40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in B40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in B40064-B40067. Primers used in the invention are given in CC C61062-C61071. The antibody of the invention is a neutralising antibody can has antirheumatic; antiarthritic; antisclerotic; antiparasitic; cantibacterial and immunosuppressive activity. The antibodies or continuous composition are given in the invention are given in the antiparasitic; antisclerotic; antiparasitic; antibacterial and immunosuppressive activity. The antibodies or continuous distribution are given in the invention are 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BADI )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 75; Page 121; 377pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200056772-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antisclerotic; neuroprotective; antipsoriatic; antiasthmatic;
antiparasitic; antibacterial; immunosuppressive; Crohn's dise;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anti-hIL12 antibody H chain V region amino acid sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disease and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Derbyshire EJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Salfeld JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        multiple sclerosis; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kaymakcalan 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000-638250/61
                                                disorders.
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GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Z, Labkovsky B,
Venturini A, Wa
J, Carmen S, Sm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US07946
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0126603
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Warne NW,
Smith S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           kind M, Banerjee S, Tracey DE,
Sakorfas P, Friedrich S, Myl
arne NW, Widom A, Elvin JG, Du
mith S, Holtet TL, Du Fou SL;
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Duncan AR;
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Query Match Best Local Similarity

100.0%; Score 98; DB 21; 100.0%; Pred. No. 1.4e-07;

Length 98; Indels

0;

Gaps

0

Sequence

98

A,

Matches

Conservative

0

Mismatches

Matches

20;

621

0

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This invention relates to a new human antibody specific for human CC interleukin-12 (IL-12). The invention also includes antigen binding CC interleukin-12 (IL-12). The invention also includes antigen binding CC portions that bind to IL-12. Sequences B39485-B39516 represent human CC anti-IL-12 antibody heavy and light chain complementarity determining CC region (CDR) amino acid sequences, and also includes variable region CC amino acid sequences. Other variable region amino acid sequences are given in B39517-B39560 and B40068-B40149. Sequences B39561-B39771 CC represent anti-IL-12 CDR3 related amino acid sequences, B39772-B40063 CC qiven in B40064-B40067. Primers used in the identification and CC construction of the antibodies of the invention are given in C61062-C61071. The antibodies of the invention are given in C61062-C61071. The antibodies of the invention is a neutralising antibody CC antibacterial and immunosuppressive activity. The antibodies or associated with detrimental release of human IL-12, especially Crohn's CC disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the mannifacture of a charmanounties! Commonstrian to treat human suppressive activity.
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B40095
ID B4
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   Query Match
Best Local Similarity
                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kaymakcalan Z, Labkovsky
Veldman GM, Venturini A,
Derbyshire EJ, Carmen S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unumui; neutrailsing antibody; interleukin-12; II-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; antisclerotic; neuroprotective; antipsortatic; antiasthmatic; cardiant antiparasitic; antibacterial; immunosuppressive; Crohn's disease; multiple aciarcate; antibacterial; immunosuppressive; Crohn's disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Salfeld JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (BADI ) BASF AG. (GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; neutralising antibody; interleukin-12;
                                                                                                                         in the manufacture of a pharmaceutical
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                                                                         98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         multiple sclerosis
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 100.0%;
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 Score 98;
Pred. No.
DB 21;
1.4e-07;
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Length

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RESULT
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                                                                                                                                      This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences B39485-B39516 represent human anti-IL-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences other variable region amino acid sequences are given in B39517-B39560 and B40068-B40149. Sequences B3951-B39771 represent anti-IL-12 CDR3 related amino acid sequences, B3977-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences given in B40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in C61062-C61071. The antibodies of the invention is a neutralising antibody and has antirheumatic; antiarthritic; antisclerotic; antinflammatory,
                                         neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial and immunosuppressive activity. The antibodies or antiparabinding fragments are useful in the treatment of disorders associated with detrimental release of human II-12, especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition to treat human
                                                                                                                                                                                                                                                                                                                                                                                       Claim 75; Page 121; 377pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kaymakcalan Z, Labkovsky B, Sakora:
Veldman GM, Venturini A, Warne NW,
Derbyshire EJ, Carmen S, Smith S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antisclerotic; neuroprotective; antipsoriatic; antiantlanthritic; antiparasitic; antibacterial; immunosuppressive; Crohn's disease; multiple sclerosis; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                           disease and multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                    New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-638250/61.
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(GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-SEP-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0126603
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y B, Sakorafas P, Friedrich S, Myles
, Warne NW, Widom A, Elvin JG, Dunce
, Smith S, Holtet TL, Du Fou SL;
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